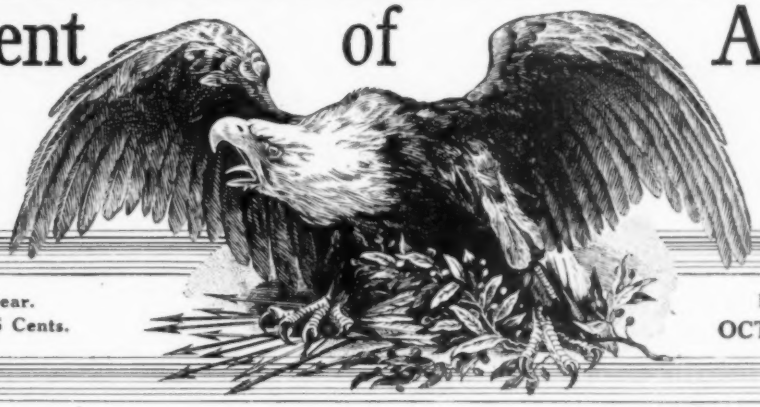
Manufacturers Record

Exponent of America



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Baltimore, Md.,
OCTOBER 23, 1919

A World Cotton Conference Supplement

The dependence of the world upon the South for its cotton and the importance of cotton in world affairs were never more clearly indicated than through the great gathering at New Orleans of the World Cotton Conference, and the addresses made by men representing Europe and this country. Every line of industry, from the producer to the consumer, from the handler of cotton to the maker of machinery for its manipulation, was represented. It was a great gathering, worthy of this royal staple and of its strategic importance in all the vast world-wide ramifications of industry and finance.

It was the most important gathering in regard to cotton ever held in this or any other land. Out of it will come a better understanding of the world's absolute dependence upon the South for cotton as freely admitted by English spinners, and a clearer realization of the fact that cotton must through all the future command profitable prices for the growers.

The speeches made were, to a large extent, of a very high order, and in the aggregate furnish the most comprehensive symposium on cotton which has ever been put together in any one publication. These addresses contain a vast amount of information as to the statistics of the cotton trade and the outlook for the industry, which are of great importance to every business man everywhere, for cotton enters intimately into the very woof and warp of the world's trade. It was, therefore, necessary to handle the whole matter in a special supplement which gives these addresses, with rare exception, practically in full, with a bird's-eye view by special correspondents of the conference and the discussions which took place during its session. A copy of this 108-page supplement goes with this issue to every subscriber to the MANUFACTURERS RECORD, to every cotton mill in America and to a large number of the foremost cotton manufacturers of Europe.

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Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

VOL. LXXVI, No. 17 WEEKLY. | BALTIMORE, OCTOBER 23, 1919 | $6.50 A YEAR. SINGLE COPIES, 15 CENTS.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS RECORD PUBLISHING CO.
Office: Manufacturers Record Building, Cor. Commerce and Water Sts.
BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President — VICTOR H. POWER, Treasurer
FRANK GOULD, Vice-President — I. S. FIELD, Secretary
RICHARD H. EDMONDS, Editor

BRANCH OFFICES:
CHICAGO, 11 So. La Salle St. — NEW YORK, 52 Broadway
ST. LOUIS, 608 Century Bldg. — BOSTON, 734 Old South Bldg

SUBSCRIPTION RATES:

$6.50 a year (in advance); six months, $3.50; three months, $2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada, add postage $2 a year. For other foreign countries add postage $4 a year. Back numbers, if available and not over one month old, 15 cents each. From one month to six months old, 50 cents each; over six months old, $1 each. In ordering change of address, give old as well as new address.

[Entered at the Baltimore Postoffice as second-class matter.]

In order to avoid delays, all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employes or any branch office.

ON WHICH SIDE WILL YOU STAND?

COMMENTING on an editorial in the MANUFACTURERS RECORD with reference to strikes throughout the country, the Bessemer Weekly of Bessemer, Ala., says:

"It is identically what we have been advocating and asserting for months and years past. It is a question that must be settled, and settled for all time, and it cannot be settled too soon. Whenever we hear of proposed strikes, we immediately respond, 'Let 'em come.' If anyone wants to strike, for Moses' sake let them strike. There is no better time for this country, if strikes have to come, than to have them come now.

"If labor unions and their bosses are to dominate this country, to regulate and control its business and to direct its destiny, let us know it with the least possible delay, that we may set our house in order for the cataclysm.

"The very idea that this country should ever be dominated by labor unionism is abhorrent to all ideas of life.

"If this is not a free country in fact as well as in name, let it be definitely determined."

If labor unions dominated by radicalism, as at present, are to control this country, which we cannot for a moment believe, then the sooner we find it out, the better.

The question at issue is one between sanity and human liberty on one side and the insanity of radicalism run wild on the other side.

On one side are freedom, liberty, the American Government and the right of every man to work and to worship God according to the dictates of his own conscience.

On the other side are radicalism, anarchy, Bolshevism, the overthrow of government and, as stated in "The Anarchist Soviet Bulletin," quoted in the Manufacturers Record last week: "The press, church and Government and Constitution can go straight to hell. * * * Down with all constitutions, governments, capitalization, churches and synagogues! Long live anarchism!"

On which side will you stand?

RADICALISM MUST BE MET AND CONQUERED BY THE AWAKENED PATRIOTISM OF AMERICA.

THERE have been some great compromises in American history, some of principle and some of detail, but not one of the former ever did anything more than prepare the way for bankruptcy, ruin or the inevitable conflict. The Missouri Compromise was a triumph for statesmanship and a calamity for humanity.

The Industrial Conference in session at Washington was summoned to effect a compromise. It is true that another phraseology was employed to define this purpose. This congregation of men, it was intimated, would by some occult means draws from a mahogany round table a new set of basic principles to govern the relations between capital and labor; would bring into being, full-grown, a new order and a new system and promulgate a slogan which would be the open sesame to peace and prosperity and establish forever an industrial edifice so perfect in its architecture that the mere vision of it would calm all agitation, stifle envy and put an end to unrest.

That was the glowing picture given of the possibilities of the conference, but, nevertheless, it was summoned merely to follow the age-weary custom and effect a compromise.

A compromise of what?

Why, there is no man in Washington who has any doubt about what is the real issue at stake. Statesmen talk for publication about "chosen representatives" and the "right of collective bargaining," and their vocabularies are rich in the formulas which seekers of votes had been using for centuries before the Gracchi began to capitalize them in Rome, but there was really only one domestic issue confronting the country that required the meeting of men together to solve it.

If it is an issue that statesmen, who think only in terms of majorities, are unwilling to face, all well and good. But business cannot be so unconcerned. It levies no taxes to pay for the mistakes of fancy-loving executives. Business must ride straight or it rides for a fall. It must meet the issues that confront it face to face or be exterminated. With it there is no middle ground.

Higher wages is only a factor in a vicious circle. It is possible to go on raising wages and decreasing the value of a dollar without reaching disaster. The dangers are merely incidental so long as relative values are not unduly disturbed. The voice of intelligence can always be heard with profit in any factory in the land, whether it comes out of the engine-room or the president's office.

But there is one thing that conferences cannot do, that

Congresses cannot do, that kings cannot do and that the people themselves cannot do; they can't transmute base metals into gold—**they cannot make idleness profitable.**

In the ritual of chaos which has become so popular among certain elements of the working people there is one idol worshipped above all others, a sneering, leering, barbarously foreheaded thing on which is branded "NO Work."

Can the conference in Washington get from the labor leaders a pledge that in an eight-hour day, or a six-hour day, or a two-hour day, the laborer will prove himself worthy of his hire? Can it get any assurances at all that the purpose of workmen is to make the factories in which they labor more successful and not merely to confiscate and take by force a part or all of the success that other men have already won and let it go at that?

Has anybody ever heard a responsible labor leader suggest that hard work is a medicine the ambitious laborer might find worth trying?

In England they reduced the number of hours in the miners' day. Did he produce more per hour thereafter, as promised? He did not. On the contrary, he did less in a seven-hour full day than he had done in seven hours of an eight-hour day. If the American miners get a six-hour day, they will not do six-eighths as much work as they do now. Precedents show they will do about 5½-eighths.

The radical leaders want to smash industry. They want to abolish all profit except their own. They want to suck the cow dry in her rich months; they can leave her and go to another, they think, when she is dry.

They do not know that while they are sucking one cow their friends are sucking the others. It does not occur to them that brute strength had its day on earth, countless centuries ago, beginning with caves as habitations and ending with habitations in caves. It may make them angry that brain is the creator of civilization, but it is a fact just the same.

There is not a business organization in America, big or little, so strong of itself that stupid management could not wreck it in a year. There is not a business organization in America of the Brobdignagian type that has made oases out of deserts and torn the very elements from the air to fertilize the fields, that could possibly survive an era of **minimum production at maximum cost.**

But minimum production at maximum cost is what the labor leaders have gone to Washington to get. And they are going to smash everything in sight if they don't get it, their followers say.

Are they?

Has a civilized world beat back the Hun and literally bathed in blood in order to preserve itself only to fall in piteous supplication before as brazen a conspiracy of economic mountebanks and charlatans as ever threw a bomb into a factory or a monkey wrench into the machinery?

Ask the decent, God-fearing, patriotic Americans who fought under Pershing in France for a few cents a day. They are in the steel mills, not out of them. They are for order, not chaos. They are for honest labor, not for that sort of labor that has more water in it than any railroad stock ever carried. They want industrial justice, and that is all they do want.

The soul of the profiteer will expose itself in his mouth whether he will or no. The unnaturalized aliens who held up this Government by the most shameless profiteering ever known in time of war, who stayed here and waxed rich while the native workmen guarded louse-infected trenches, who came here to exploit the industries of America and who did exploit them; they are the trouble-makers who, gorged but not satiated, spread their spawn of riot about and boldly threaten the very Government itself with destruction and annihilation unless it yield to their blackmailing threats and put its own head and the heads of all the people under the yoke.

This is not the first time the forces of ruthless lawlessness have threatened the nation. They did it in Washington's time, and he lashed them back into respect for order. They tried it once with Grover Cleveland and discovered that there was a he-man in the White House.

There was no compromise then; there should be no compromise now. Let the Industrial Conference go back home if need be. It might better go back home than be led by its nose into a labor slaughter-house, a veritable shambles of industry, where aliens strut about as masters.

There is a conference held every four years in this country, from the verdict of which there is no appeal. It is a conference that shirks no duty, yields to no threats, and in the very recordation of its verdicts exhibits so vast a power that none dare question either its authority or its commission. If the issue, therefore, is the subordination of government to the brute strength of a deluded class that is determined to attempt the overthrow of economic law and the institution of a system involving the confiscation of property and embezzlement of wages by forceful acquisition of money for which it has given no honest labor; if the issue is the apotheosis of slothfulness, the worship of idleness and the employment of the taxing power for the enrichment of labor unions only, directly or indirectly, then, by all means, let the American people meet that issue, and meet it squarely, at the ballot box.

There will not be any compromise then. This Bolshevism, this industrial vandalism, this translated Hunism, will be crushed under such an avalanche of votes that not in 50 years will a similar insanity raise itself to the dignity of a cult in America.

Washington is deluded and fooled by the loud cries of propagandists, and mistakes their murderous outpourings for public opinion. And, in turn, thousands and tens of thousands of ignorant men are deceived by promulgations from Washington into believing that prosperity and riches can be achieved by the mere composition of some mysterious slogan which will end poverty and bring to laziness endless streams of gold. But phrases never made a sewing machine, a lath or a bushel of wheat.

Let business, which is the bread and butter of any nation, put in the White House a business man who will speak with authority; let business appeal to the country for a fair and a square deal, and the whole mob of fat and greasy malcontents will run to cover so fast that an automobile could not keep up with them.

It is a new world, yes; but if anybody imagines that fighting in Flanders has changed the simple laws of economics he is only out of the insane asylum because so many of his fellows have gone crazy too.

SHALL WE HAVE LIBERTY OR HELL IN AMERICA? THE PEOPLE OF THIS COUNTRY MUST ANSWER PROMPTLY.

THERE is nothing in the Peace Treaty about industrial peace. There is in it no clause to prevent the Hun from undermining the industrial structure of the nations against which he launched his Juggernaut of hate in 1914.

The armed forces of Germany are ostensibly unarmed, but her most subtle emissaries of disaster, her propagandists, are loose and they are continuing the wrecking method pursued by Ludendorff and his unspeakable associates in their retreat through Belgium.

The Amalgamated Meat Cutters and Butcher Workmen's Union has been trying to force recognition of the closed shop by tying up the entire meat-packing industry of the East.

A strike was ordered in Baltimore last week. In its account of the opening of the strike, the Baltimore Evening Sun says "the hand of German aliens, who during the war were restricted to barred zones, and in some cases were even vouched for by the very employers they are now turning against, was seen in the opening of the strike, which resulted in one clash in the northeastern section of the city."

The man who figured in that clash was an alien enemy during the war. So was one of the chief organizers of the strike, who was given the privilege of barred zones during the war instead of internment solely because his employers vouched for him. Others leading the strike included, according to the Sun, "a man named Rocco, said to be a radical from New York, and a German named Mainhardt."

When the Sun reporter went to get a statement from the strike leaders he was greeted by the bitter denunciations of a leader who became so excited that he could scarcely understand his own broken English.

The Press used to say that there was hell in Belgium. There will be hell in America if the brazen exponents of industrial disruption, with the German philosophy of hate stamped deep all over them, are permitted to run freely about the country, stirring up strikes, preaching revolution and mocking American institutions by employing them as a masquerade under which they work their nefarious designs.

America did not want the Hun civilization and sent some millions of men and billions of dollars to Europe to drive it back into its own habitat and utterly wipe it out from the face of the earth. America did not want an economic philosophy "made in Germany" to permeate American industrial institutions and wreck them. But that is just what is happening.

"Two patriotic work hours every day for every German!" That is what the Hun preaches and practices for himself at home. Two hours a day less work, less work per hour and more pay is what the Hun preaches for the workmen of other nations, and his fellow-Huns march the streets of American cities in perfect safety, spreading that philosophy and actually inducing gullible Americans—a few of them—and thousands of aliens—to accept that philosophy.

Who won the war? Nobody knows now and nobody will know for twenty years, but while native American boys were winning it on the battlefields of Europe, a lot of profiteering aliens were doing what they could to lose it in the workshops at home, to the extent of staging something more than 6000 strikes in the space of eighteen months and running up wages until their bellies fairly bulged with stuffing. They put a load on Uncle Sam's back that they thought would break him. It did not, so with the characteristic effrontery and cunning of the Hun, these same alien elements, unleashed and mouth-free, are engaged in sapping the very foundations of government and industry. They even move in the open; they have dared not to conceal their activities. Immunity has emboldened them. They defy Washington and mock Congress, that Congress which has before it all the evidence unearthed in the Overman investigation, that Congress to which has just returned the committee investigating the steel strike with a report that in place after place about Pittsburgh it couldn't get any testimony because the men employed did not speak a language they understood, nor they a language the "workers" could comprehend—they mock that Congress because it, with a full record of the case in hand, with full information of what the Huns are trying to do, merely extends the war-time immigration restrictions, but is afraid to enact legislation that will preserve the fruits of bloody victory in the field and save American industry from threatened disruption.

While the Industrial Conference in Washington is talking about "the closed shop," Congress itself ought to be talking about a "closed country." That is the real issue.

Here in Baltimore we have aliens blackjacking good Americans who want to work. Had the Kaiser sent his fleets up the Chesapeake and were his black emblem of hate waving over the capitol, a more disgraceful condition of affairs could not exist. He himself is virtually interned, but his servants are loose and they work his will.

Economic unrest! That is a masquerade. The unrest is the unrest of propagandists, of alien enemies, of human snakes that are crawling and working their way into the very citadels of our prosperity. They are trying to do to industry what the boll-weevil does to cotton. They are as ruthless as their fellow-spawn were in Belgium, as malignant as they were in Poland, as fixed in their purpose of destruction as any Hun officer that ever raped a woman or transfixed a babe in arms.

Senator Kenyon says Americanization. We cannot Americanize the Hun. We know of no surgery that can transform a snake into a lamb or transmute the brain of a fox into the honest intelligence of an ox.

If labor unions have become refuges for alien enemies who but a year ago were compelled to be labeled and counted, if the unions not only give sanctuary to these hell-bent-for-ruin agitators, but actually accept them as leaders and are guided by them, then the remedy is not Americanization, but expulsion. They ought to be driven out of the country. They ought to be sent back to Germany to give two patriotic hours a day to their own country instead of the sixteen unpatriotic hours a day they are giving to this country.

When you see a man waving the Red flag, push him to one side and jerk out the Hun who is hiding behind him!

ORGANIZE TO PROTECT AGAINST MOB VIOLENCE.

RECOGNIZING the danger that may at any time arise by reason of the radicalism which is rampant in the country, and which may produce riots here and there, the business men of Indianapolis are arranging for a police reserve to be composed of 1000 or more leading business men, whose duty it will be to protect the resident sections of the city in an emergency should the police force be called to suppress a riotous situation elsewhere.

The experience of Omaha when a wild mob tried to lynch the Mayor, and came very near succeeding, and burned the courthouse, is an indication of what might happen in almost any city in the country unless there is an ample reserve of police power to dispel a mob. When once the mob spirit has broken loose in a city, as it did in Omaha, a city in which no one outside would ever have expected such a wild orgy of crime, it is uncontrollable except by the power of some force greater than the mob.

Omaha suffered immeasurably through the crimes com-

mitted by that mob. The very safety of the city was in danger when the mob spirit held sway. Indianapolis is wisely providing in advance for a force to meet such an emergency should it be nesessary. Every city, indeed, every town, in the country should do as Indianapolis has done. The men who enter this police reserve force should be composed of the very best men of the city; men of judgment and of cool heads; men who could help to control a situation, and who are ready as American citizens to stand for the protection of American rights as against the Bolshevistic element which today seeks to destroy our country.

The supreme need of the country today is the maintenance of law and order. That is above all other issues. The League of Nations, the Peace Treaty, the strikes here and there and everywhere, are all of comparative unimportance when placed alongside of the necessity of the maintenance of law and order and the suppression of the mob spirit whenever and wherever it may break loose. The Bolshevists are at work trying to create a mob spirit everywhere. They hope at some point they may be able to dominate the situation and capture a city and begin a campaign of ruin. That is to be the signal for an uprising in every other city in the country. No one knows when and where the next riot may occur. The one at Omaha was as sudden and unexpected as the next one probably will be.

The maintenance of the liberty of the country, of law and order, and the protection of society, is now the first duty of every American, and what Indianapolis has done by the organization of a police reserve force composed of the best business men in the community, should be done everywhere throughout this land.

NO SIGN OF PENITENCE IN GERMANY.

ONE of the leading religious papers in America, the Continent, in a recent editorial said:

"Methodists in Germany, holding conference at Plauen, have adopted resolutions beseeching their 'mother church' here in the United States—the Methodist Episcopal—to secure some relaxation of the treaty of peace imposed on their country by the Allies 'in order to overcome all disturbances caused by this war.' The 'mother church,' we trust, will promptly reply that the best way 'to overcome disturbances caused by the war' is for German Christians to wake up to the wickedness of the ambitions which led German rulers to perpetrate on the world a causeless conflict in order to achieve a vainglorious German supremacy. Let these Methodists in Germany be taught to regard themselves as called of God to disseminate by example and preaching a spirit of penitence through their nation. If Germans in general should but once make manifest any thoroughgoing shame for the frightful sin they have committed against human brotherhood, they would speedily be forgiven by Americans at least. But the most discouraging feature of the whole situation in the former German Empire is the fact that church leaders are quite as impenitent and pharisaically insolent as the worst of the political leaders.

"A pamphlet lately put forth by Professor Axenfeld, an important official of a leading German foreign mission society, repeats the ridiculous assumption that Germany fought a war of self-defense, and the punishments imposed on it now are solely due to the ruthless cruelty of its foes. When truth finds no place for the sole of its foot in the churches of a land, where may it lodge? What American Methodism ought to do is to appoint a big missionary delegation to go into Germany and teach the people there through the medium of its affiliated churches among them a gospel of penance for national sin."

To those who are sentimentally inclined, from a sickly, neurotic theory of forgiveness where there is no penitence, the statement of the Continent should be of special interest.

WHO IS RESPONSIBLE FOR THE HORDES OF FOREIGNERS IN AMERICA?

THE charge is constantly made that the great business organizations of this country were mainly responsible for the enormous immigration of the lower classes from Southern Europe, whose presence here so seriously afflicts our national life.

The charge, however, is not wholly just. The development of the immigration business after the close of the Civil War was very largely done by steamship lines, and especially by the North German Lloyd and the Hamburg-American lines, and also by one or two Swedish and Italian lines, which made special efforts to bring immigration to this country.

Prior to the war, we were receiving about 1,000,000 immigrants a year. They paid to the steamship lines which brought them to this country about $25,000,000 a year. This was formerly one of the chief sources of profit for the Hamburg-American, North German Lloyd and other steamship lines which handled the bulk of this business.

These steamship companies flooded all of Europe with literature about America. There was scarcely a village in any part of Europe in which they did not distribute most glowing tales about the wonders of America. Their agents were to be found in almost every village and town of Europe, urging people to move to America, and ready to sell them tickets straight from any interior village in Europe through to the coast, and from the coast to New York, and from New York on to Pennsylvania or the West.

Every possible inducement was made to develop this immigration business. The railroads, which for years have sought to encourage tourist travel to California and Florida as well as to the New England summer resorts, have never displayed one-tenth of the activity in this business that the steamship lines, owned in Europe, displayed in the development of this immigration traffic, which added such an enormous annual sum to their profits. These steamship lines often worked in connection with the great transcontinental railroads of this country, and the two were united in flooding Europe with literature about the United States and in flooding the United States with immigration.

To these foreign steamship companies it mattered not whether the immigrant was a socialist or anarchist, or a reputable man, provided he could pass the inadequate inspection system and be admitted to this country. These steamship companies were after the business of bringing immigrants by the millions to America in order to add millions to their treasuries. In former times some European governments paid these steamship lines a bonus for taking their most undesirable citizens to America in order to be rid of them. Our country was lax in not seeing the danger of the situation and in not providing adequate legislation to keep out much of this immigration.

There was a foolish sentiment developed to the effect that America was the great melting-pot in which all of these races of the world could be fused into a homogeneous mass, that gloried in the boastful statement that America was equal to civilizing and Christianizing all of the millions that kept pouring into our land. When the nation was at times warned

against this mighty horde, some overzealous and not well-informed religionists took the ground that this was the best possible way through which to preach the Gospel to all the world, and we should encourage the incoming of these millions of foreigners and here give them an opportunity which they might never have at home of hearing the Gospel, and in this way we would be making citizens and Christians of them. It is true that the Gospel has been successfully preached to many of these people, but these advocates of unlimited immigration overlooked the fact that the inrush was so great that it was beyond the power of our country to reach all of them with the evangelizing power of the Gospel.

We put up the bars against the Chinese, who are infinitely better workers than these other foreigners, and shut them out from our land, but with wide-open doors we bade a welcome to all of the off-scouring and scum of Southern Europe, and we got much of the worst of it.

The steamship lines owned in Europe, and not the great business corporations in this country, are the ones primarily responsible for the tremendous horde of these foreigners who now endanger our existence.

SOCIALISM A DENIAL OF GOD.

ONE of the most hopeful signs of the awakening conscience of America and the realization of what the anarchistic campaign of the hour will mean if not halted, is the way in which the ministers of all denominations, Protestant and Catholic alike, are calling upon their people to antagonize the socialistic element which now seeks to rule and ruin. This side of the case is strongly stated by Bishop Kelly of Savannah, who, in a sermon on Columbus Day addressed to the Knights of Columbus, delivered a message to them which applies with equal force to members of every other denomination and to all who are not members of any church. In his sermon Bishop Kelly said:

"To me there had never been a doubt as to the ultimate result of the war. My belief and confidence in a just and merciful God convinced me that Germany would be defeated, but I am free to admit that never for a moment did I anticipate the result which followed the overthrow of the German military system.

"Today there is hardly a government in Europe where the Socialists do not control affairs, and **Socialism means a denial of any right of God in the matter of the conduct of human affairs.** No political order ever has been, or can be, based on Socialistic ideas. And these principles are finding their way into the United States. Here the same spirit is exhibited in the disregard for law and order, and the orderly and lawful conduct of our civil affairs.

"For you the duty is plain. As our boys stood shoulder to shoulder and fought despotic rule over there, you should stand shoulder to shoulder here in support of law and order, and always and everywhere oppose mob rule or any other kind of disorder. The constituiton and law are your guide. Always and everywhere be found on the side of law and order. The Kaiser was not one-half as much an enemy to us and our institutions as the man who defies the law or defends the actions of the lawless mob. We have, to our shame, too many examples of lawless conduct in this State. Never condone it; always oppose it. Stand behind the lawfully constituted authorities. Only this will save America from the fate of those German cities ruled for a time by the murderous mob.

"Do not be deceived: the peril is at our door. Never allow yourselves to be carried away by the false claim that it is right to take the law into your own hands. **We want no anarchists or revolutionists here; we want law, order and the peaceful conduct of our affairs.**

"As knights, raise the old cry, 'For God and country!' This is your duty today. Doing it, you will have the blessing of God, the approbation of conscience, the gratitude of all patriotic Americans."

SHALL ALIENS BE PREVENTED BY LAW FROM BECOMING MEMBERS OF AMERICAN LABOR UNIONS?

CONGRESSMAN C. R. LAYTON, in writing to the MANUFACTURERS RECORD regarding a suggestion recently made that aliens should not be permitted to join labor organizations in this country, says:

"It ought to be feasible to enact a law prohibiting aliens from becoming members of labor organizations in this country. This is a novel idea to me, but the logic of it and the righteousness of it become apparent even upon the heels of the suggestion. I will take this matter into consideration and, by consulting with other members of Congress, see what can be done in the matter."

The idea is novel and is entirely new, and Mr. R. G. Crosby of Texas, who first presented it through a letter to the MANUFACTURERS RECORD, made a suggestion which should command the instant favorable consideration of the country. When aliens come to this country they should have no voice whatever in managing the political affairs of the nation unless they choose to become citizens; but though aliens cannot vote, they are persuaded by labor leaders to join labor unions, and all of their influence for evil is mobilized to help control politics.

If the alien is not satisfied to work in America without becoming a member of a labor organization, then we could very properly suggest to him that he can do one of two things:

(First)—Become a citizen of America; or

(Second)—Go back to the country from whence he came.

The sooner these dissatisfied aliens, who are responsible for much of the present trouble throughout the country, are sent back from America to the land from which they came, the better it will be for us. We can infinitely better afford to mine less coal and make less iron and steel, and increase our national wealth less rapidly, than we can afford to permit these hordes of aliens to pollute the life of the country and endanger our Government.

We again urge upon the country the wisdom of the suggestion made by Mr. Crosby, that a law should be passed forbidding aliens to become members of any labor organizations in America.

Capt. D. G. Price of Deweyville, Tex., in writing in regard to the subject says:

"I have just read on the first page of your October 9 issue Mr. Crosby's article on the labor question, also your comments on the same, and I agree with both of you that something must be done in the matter, inasmuch as the American laboring man can't see and realize that he is being exploited and used as a sucker by a lot of alien leaders and organizers subsisting on his labor. And, by the way, an American laboring man must have some opinion of himself when he allows an *alien* to dictate to him *what* he shall do and *how* he shall do it! *Some man, eh!* He must be all swelled up over the idea that he is an American citizen. It is up, therefore, to somebody else to take a hand, and that somebody else is the Congress. Let the Congress pass a law, and enforce, it irrespective of what Mr. Gompers should say, compelling all labor organizations to *incorporate* and become *responsible bodies* that can sue and be sued and in which no member can hold membership or stock unles he be a citizen of the United States, and the President and 75 per cent of the board of directors and all organizers must be native born.

"Mr. Editor, the time has arrived in which it is absolutely necessary that *Americans* shall be ruled by *Americans* and not by foreigners, either at *home* or in the *League of Nations*.

"So it is up to Congress, and if they don't want to sing the *Swan Song*, they should remember that there are more *votes outside* than there are *inside* of the Labor Party."

The suggestion "all labor organizations should be incor-

porated" was, so far as we remember, first made about 25 years ago by Hon. Chauncey F. Black, a distinguished Pennsylvanian, who was at that time president of the Democratic Clubs of the United States. Governor Black was an attorney of very high standing, who had held very eminent positions in his own party.

A little less than a quarter of a century ago during the free silver campaign, when there was a great unrest throughout the country, Governor Black often discussed with the writer the desirability of meeting the labor unrest situation by compelling all labor unions to be incorporated so that they could make binding contracts with employers and each side could then sue or be sued in the case of a violation of an agreement or the breaking of contracts. We believe, however, that this idea has never been popular with the labor unions. They have never wanted to put themselves in a position where they could be sued. They have demanded the right of breaking contracts without any financial responsibility therefor. In this respect they have been unlegal organizations and unwilling to subject themselves to the laws which control all business men.

The question of compelling labor unions to be legally incorporated is an interesting one, but even if this should be done, no labor union should ever have the right in any way whatever to antagonize non-union or free men.

Members of labor unions, unless engaged on public service work, should have a right to strike, but whenever they undertake to say that somebody else shall not work, they then become criminals.

We quite agree with Captain Price's view, that the time has come to say that aliens shall not be permitted to bring upon this country such unrest as we are now having from their strikes in the steel and other industries, and if these aliens are not willing to abide by American laws, then the sooner we deport them, the better, even if in doing so we get rid of a very large amount of labor which ordinarily might be needed in the running of some of our industries. We would better be without industrial expansion than to have our Government endangered by the alien agitators of the hour.

Senator James E. Watson of Indiana takes a different view of the matter from Mr. Layton, but in vigorous language suggests how to meet the problem of aliens and of Soviets and Bolshevists. Writing under date of October 16 to the MANUFACTURERS RECORD he says:

"In my judgment it would not be constitutional to enact a law prohibiting aliens from becoming members of labor organizations. Such organizations are not controlled by Federal law, and cannot be, and therefore no Federal law affecting their membership could be made constitutional.

"Labor unions do not take out Federal charters and in no sense are they the creatures of or recognized by our Federal statutes, and therefore Federal laws affecting their membership cannot be passed.

"The way to do with aliens is to deport them. The way to do with citizens is to punish them. The way to do with all Soviets and Bolsheviks is to move against them with all the power of the Government, both State and national, and fool away no time in doing it."

The Miller Supply Co. of Huntington, W. Va., in a letter discussing the subject of not permitting aliens to become members of labor organizations, writes as follows:

"Your published letter of the 9th instant is before me, in which you ask the leading question, "Would it be feasible to enforce a law prohibiting aliens from becoming members of labor organizations in this country?" The reasons you give regarding the feasibility of the enforcement of such a law are good.

"I think it would be feasible to enforce a law as you describe just as much as it is possible to enforce the prohibition laws or any other laws that are desired to be enforced. Labor organizations should be put under Federal control the same as a great many other organizations. If the sentiment in this country is built up for such control and enforcement it can be done. The Draft Law—It was questioned whether it could be enforced. The Government decided it would be enforced and did it. That ends the argument so far as I can see."

Another letter on the subject is from Mr. C. W. Howard, Manager Industrial Board, Chattanooga Chamber of Commerce, who says:

"Just a line in reference to R. G. Crosby's suggestion.

"It is rather funny; there is always a common-sense solution for our most difficult problems, and Mr. Crosby has furnished a solution.

"There is no more reason why an alien should vote in a labor organization than that he should be allowed the rights of citizenship before subscribing to the conditions. I sincerely hope and believe that the steel strike will settle a number of things definitely, and of them, Mr. Crosby's being the first and most important; next to this, that any alien coming to our shores can have, not five years as suggested by some, but two years in which to speak the English language sufficiently well to make himself understood and to be able to receive instructions in the same language, and that at the expiration of the two years he should either file application for citizenship, to be given him at the termination of, say, five years, or failing to do this, should be deported. To my mind, the only weak spot in the labor conditions of the steel manufacturers is their willingness to employ labor that must be instructed in five or six different languages."

Mr. F. J. Moss, president of the American Sash & Door Co., Kansas City, Mo., says:

"Dear Sir—Regarding your letter concerning the feasibility of enacting a law prohibiting aliens from becoming members of labor organizations in this country—so much good would come of such a measure that, in my opinion, it is well worth the effort, and in view of the fact that it is now the avowed purpose of federated labor to become active in politics, it would be inconsistent to permit the alien through organized labor to express a choice in political matters which is denied him as an individual; that is to say, a large majority of organized labor are aliens who, as individuals, are denied the privilege of voting, and rightly so, so that an expression from organized labor is non-American rather than American."

ONLY ONE KIND OF AMERICANISM.

GENERAL LEONARD WOOD is supposed to be a candidate for the Republican Presidential nomination. That nomination is a long way off, and we are not concerned with the political fortunes of any individual. But when a man, particularly one seeking votes, comes right out before the whole country and says what he thinks, without equivocation, and tears himself loose from the sniveling, ballot-hunting, pussy-footing coterie of statesmen who have been nurturing Bolshevism and anarchy and unrest and economic disease in this country by flirting with exponents of such calamitous doctrines, it is worth while for decent citizens and decent publications to give him the encouragement that is his right.

Speaking in New York at the request of the Women's Roosevelt Memorial Association, General Woods said:

"There is no room in this country for the Red flag. It is against everything which this Government stands for, the home, the town, the nation. Kill it as you would a rattlesnake, and smash those who follow it, speak for it or support it. They are enemies of the State and dangerous enemies."

Perhaps General Wood's denunciation of revolution will be translated into a dozen different languages and distributed among the fat aliens who know nothing of our tongue and so little of our institutions that they imagine they can submerge them overnight. But the General will hardly care. Probably he knows, as so many other Americans have learned in the last five weeks, that the only kind of American who is going to be permitted to guide the American ship of state is the American who has no hyphen for a waist line and whose vision is so clear that there is never any danger of his mistaking the Red emblem of destruction for the Stars and Stripes.

THE CRIME OF ROBBING CHINA OF THE VERY HEART OF ITS RELIGIOUS LIFE.

IN the September number of the National Geographic Magazine Mr. Maynard Owen Williams, in an interesting article on Shantung, with special reference to the Shantung coolies, of whom more than 150,000 were sent from China to France to assist in war work, calls attention to the fact that there are in the Shantung section **"30,000,000 people whose idea of a day's work is sixteen hours."** "They are," says he, "crowded into a province the size of Iowa. There must either be industrial development or periodic migrations of labor to less thickly settled parts of the world."

Referring to the 150,000 Shantung coolies who helped the Allies by doing war work, he writes:

"'Man-power!' shouted Europe, and Shantung answered with 150,000 coolies who knew no fatigue and who did intelligently and industriously the simple but essential tasks they were given to do."

Now there is talk of a quarter of a million or more Shantung coolies to help restore France, and yet Shantung, with its more than 30,000,000 people, who responded so quickly to the call of the Allies, will, under the covenant of the League of Nations, if carried into effect, be dominated by Japan, and if America should put its signature to that portion of the League of Nations, it would commit a crime against China, a crime against international morality, and a crime against the civilization of the world for centuries to come.

It is to China that the Christians of America and Great Britain are looking as the greatest field in the world open for evangelization. In China the missionary of the Gospel is more warmly welcomed than in any of the so-called heathen lands of the world, and here it is that the missionary is doing his greatest work. With 400,000,000 people, or a quarter of the world's population, able to live on less than any other people in the world, and yet work with a lack of fatigue not known elsewhere, with China turning to a republican form of government as against the monarchial government of Japan and some of the other countries in the proposed League of Nations, we are helping to stab China in the back.

One of the great outstanding opportunities in the very life of America has come to this country to stand by China and refuse to ratify the covenant which gives the control of Shantung into the hands of Japan.

We were not a party to the treaty between France and Great Britain on one side and Japan on the other. Unwise as it was for Great Britain and France to make such a treaty, their mistake would be very small compared with our crime should we finally ratify the treaty that gives Shantung to China, for they made the mistake under the stress of war, and we would make it in the cold-blooded light of peace after the whole situation had been opened up to world investigation. China would almost have a moral right, under the circumstances, to throw its lot in with Japan and join Japan in seeking to destroy this nation and others which had so completely betrayed their friend.

In the same issue of the National Geographic Magazine Dr. Charles K. Edmunds, president of the Canton Christian College, likewise has an article on Shantung as China's Holy Land. In Shantung is Tai Shan, the "Holy Mountain of the East," and, as Dr. Edmunds said, "it was visited and prayed to as a God by the patriarchs and monarchs of the hoariest ages. Its sacredness was a well-established doctrine in the earliest historical times." It is mentioned in the Shu King, the Book of History, as where Shun sacrificed to Heaven, B. C. 2254. It is, accordingly, celebrated for its historical as well as religious associations.

On the summit of Tai Shan is built a great temple, to which the devout Chinese pilgrim, or follower of Confucius, slowly climbs through an ascent of 4700 feet, in a distance of five miles, by means of 6600 steps on a well-paved highway. Hundreds of thousands of pilgrims annually visit this temple on the top of "the Holy Mountain of the East."

Thus the whole history of China, running back twenty centuries or more before the birth of Christ, is, from the religious as well as from the business point of view, centered in Shantung. There is no one part of America so sacred to the people of America as is Shantung to all China. To rob China of the control of that section, which has been the center of its religious life through more than forty centuries, would be an unspeakable crime, and every nation guilty of joining in that crime will, in some way, ultimately have to pay the penalty, for it is true of a nation as of an individual, that your sins will find you out.

THE HONEST AMERICAN LABORING MAN VS. THE RADICAL "REDS."

WE are constantly in receipt of many personal letters, some of which are intensely interesting, but which cannot be published over the names of the writers, because to do so would at times involve them in difficulties in their own communities or with their customers. Many men are so situated that their hands are tied and they cannot say publicly even on vitally important questions the things they would like to say.

One letter of this kind which has been received, in hearty commendation of the position taken by the editor of the MANUFACTURERS RECORD in a telegram to Judge Gary urging that there should be no arbitration with the radicalism which is seeking to overturn the Government, carries the following interesting statements:

"Union labor has nothing to fear, nothing to howl about, when it is given its just due. In this present strike, it would seem that every reasonable thing is thrown to the winds, and they are striking for the one purpose of turning the whole thing into a Soviet machine, although we are told that the average American workman is not doing so much belly-aching. It is the 'Red' who is howling, and may the Lord speed the time when they will all be in the country where we don't shovel snow. Now, my dear sir, it's up to you and your kindred to fight the good fight of rightness and righteousness. I do not for one moment believe you are against the laboring man. You know and all men know that he is the one thing needful to keep the wheels turning around. He should have his due, and is entitled to it, but he is not entitled to dictate the policy of the man who is putting up the money. I get my living from the laboring man. I am thankful, however, that the boys down here are not radicals; they are Americans, and stand for decency.

I believe Mr. Gary will win this strike and that it will be the best thing that ever happened for capital, and for organized labor as a whole as well. The average American man of means and brains, the man who makes things go, is not a devil; he is always, or nearly always, a man and he wants to do right. The whole thing now tends to prevent him from even treating labor as well as he would like to do, due to the hellish ideas imbibed from the 'Red' element. I am for capital having its legitimate rights; the capitalist is the agent of the multitude; when the time comes for him to pass, God, in His wisdom, will do away with him, but until that time he it is who opens the way and makes the world move. This is the highest truth.

"We need an educational campaign similar to that put forth during the war. It will bring results; howling and force will never do it. If we have to use a club to the 'Red,' we can do it, but for the average American, he can be led, and not driven.

"During the war I was Food Administrator. I did not try to force anyone to do anything; I appealed to their patriotism, and it worked. * * * Why not a campaign now, rather than the 'Fair Price bull' they are pulling? We want to give them the truth, and the truth is that the high cost of living will only be reduced by scientific efficiency and economy. Let's preach this from every stump, and the fair-price artists will not have such a terrible amount of work to do, trying to take from some and give to others. The average American has sense; he can be appealed to, but the 'Reds,' it would seem, are comparatively hopeless, and the remedy should be applied that suits the case."

CHURCHES SHOULD NOT BE EXEMPT FROM TAXATION.

ACCORDING to a special dispatch to the New York Sun, the Statist of London, one of the leading financial papers of the world, has thrown what is doubtless something of a bombshell into the conservative ranks of England's church life. The Statist not only voices its opposition to the Established Church maintained by the Government at the people's expense, but definitely proposes that all property owned by the Church of England shall be sold and the proceeds applied toward the payment of the war debt. Even Westminster Abbey, with all of its sacred associations, according to the Statist, should be offered for public sale.

The Statist is very strong in its opposition to the Church of England being maintained at public expense, but it goes beyond this in advocating that these church properties should be sold. It doubtless has in mind the idea that the individual congregations would buy most, if not all, of these established churches, and in that way a vast amount of property owned by the Church of England would become a liquid asset for the benefit of the Government, while the churches themselves would continue, through the purchase of the properties by the members, practically undisturbed in the possession of the congregations now worshiping in them. This, we take it for granted, is the thought of the Statist, although the latter point is not made clear in the dispatch to the Sun. We cannot imagine that the Statist desires to destroy these churches, but that it wishes to destroy their power as Government-supported institutions, and in this we think the Statist is entirely correct, however vigorously its position may be antagonized in England.

The separation of Church and State is a fundamental necessity for the broadest civil and religious liberty, but we in this country need to learn a lesson which might in some respects be almost as radical to the thought of many people as the proposition put forward by the Statist. To a very large extent the churches and church property in America are exempt from taxation. This is a false system. Church buildings and all church property should be taxed on exactly the same basis as other property. Exemption from taxation of church property is practically a direct financial contribution from the State to the support of the church. No one would for a moment propose that a State or city government should make a direct contribution of cash from its treasury of $500 or $5000, or any other sum, toward the maintenance of any particular church, regardless of the denomination. But every church which is exempt from taxation is receiving a direct contribution from the State.

The system is wrong. It should be changed. It will be infinitely better for the State and for religion for this connection to be absolutely severed. No State has a right to contribute to the support of religion or the maintenance of any one denomination, and yet every State which exempts church property from taxation is contributing to the maintenance of religion, and is subsidizing to that extent every church exempted from taxation. The churches thus become recipients of a bounty or subsidy from the State—a system which should never for one moment be permitted in this country.

In reply to this view it is sometimes said that the churches are a great blessing to the community in which they exist by increasing the value of real estate in their vicinity and through their general moral influence for the betterment of the section in which located. While this is true, it does not in the slightest furnish any foundation or justification for the State subsidizing religion through subsidizing the individual churches which represent the religious activity of the country. If churches were compelled to pay fair taxation, like all other properties, their own members would be stimulated to larger giving, and the church which depends upon the charity of the public rather than upon the willing self-sacrifice of its own members is working on a false basis. It ought not to be possible for a State or a city through exemption from taxation to compel the people of one denomination to help to support another denomination.

The general thought under which this system is carried on is that all denominations are benefited through exemption from taxation; but the whole system is contrary to good government; and, more than that, it is contrary to the best interests of the churches themselves. Blot out the churches and you would blot out civilization, but until churches are made absolutely independent and separate in every way from the State, there is more or less of a union of Church and State which is injurious to both. The best interests of the religious life of the country demand that all churches shall pay taxation on all church property on the same basis as all other property. There should be absolutely no exemption from taxation on churches or church property.

We are glad to see the movement suggested by the Statist for cutting loose the British Government from the Established Church of England. If the plan is carried out, with modications which would make it feasible and equitable, it would be a great blessing to the Church of England itself, as well as to every other interest of that country.

GHENT AS A EUROPEAN COTTON DISTRIBUTING CENTER.

REFERENCE was made recently in these columns to the fact that an attempt is under way to make the Belgian city of Ghent the chief center of cotton distribution for central Europe. It was stated that Ghent is nearer geographically than other European ports to the great spinning centers and that the development of its terminal facilities, its docks and warehouses should cause it to become a great distributing center for cotton.

Through the courtesy of Mr. Maurice de Smet de Naeyer, chairman of the Belgian Official Mission to the World Cotton Conference at New Orleans, we are in receipt of an attractive illustrated booklet on Ghent, as the Belgian Cotton Harbor, which sets forth in concise and interesting fashion some facts about the city which are probably known to only a very few business men in this country.

Ghent with its suburbs has a population of a quarter of a million people; it is essentially an industrial center, having over a million and a half cotton and flax spindles and some 50,000 looms. Its industrial establishments are all in the suburbs and thus the ancient aspect of the center of the city remains unchanged with its numerous canals, its towers and monuments and its Gothic churches. Ghent is also the City of Flowers with a reputation world-wide.

The devastations made by the Germans in the harbor have been made good. Communication from the harbor with the principal industrial centers of Belgium, the north of France and the North Sea is had by means of rivers and numerous canals. The harbor is connected also by an extensive railroad system with all the different cotton mills in Belgium, Holland, Central and Southern Germany, Alsace, Switzerland, Western and Southern Austria and the north of Italy.

In the course of his letter to the MANUFACTURERS RECORD discussing this subject, Chairman de Smet of the Belgian Commission writes:

"Ghent used to be a large distributing center of American goods, more especially cotton, the products, timber, etc., to numerous countries of the world, i. e., the North of France, Alsace Lorraine, Switzerland, Italy, the Rhine Provinces, etc.

"Exceptional facilities will be granted to large import and export American firms willing to become regular customers of the Port of Ghent. The reforwarding of the goods can take place almost immediately. The dock, quay, wharfage, unloading and warehousing expenses may be considered as the cheapest in Europe."

"I AM PRODUCING MORE."

PRODUCTION, more production, and still more production is the only solution for the high cost of living, and for many of the evils which confront our country. If every man in this country was working to the full extent of his mental and physical strength in producing the things needed for the world, there would be boundless prosperity and enlarged production, which would lessen the cost of living.

Efficiency to the fullest utilization of a man's power to produce must be pressed upon the nation.

Every man who goes on a strike for a single day helps to increase the cost of living and to forge around his own neck the burden of high prices.

Every idle hour in this time of the world's need for more food and for more manufactured products, for more dwellings and for more of all the things that enter into life is an hour lost forever, and its loss can never be made good. It means lowered production, decreased supply and increased prices.

With a view to awakening the nation as far as may be possible to these truths, the Atlanta Chamber of Commerce has undertaken a campaign which, if universally and aggressively pushed, would be of inestimable value to this country and to the world. It has produced a beautiful button, on which in clear type are the words "I Am Producing More." It is proposed to have business men everywhere secure a supply of these buttons, call their employes together and make a talk to them as to what increased production means for bettering the world's condition, and ask every one to wear a button. This scheme, which is entitled "The Atlanta Idea," looks to the enlistment of everybody, from bankers to boilermakers, from painters to preachers, from presidents to plasterers, from merchants to mechanics, the capitalist, the laborer and the consumer, and aims to induce all of them to wear the button "I Am Producing More."

In the circular-letter announcing this plan the Chamber of Commerce says:

"When the buttons begin to appear throughout the nation, immediately there will begin a nation-wide discussion among the workers, out of which will grow a real knowledge of what increased production means, and then will come a full realization of the aims of the Atlanta idea—I Am Producing More."

Unfortunately, the American people need constant stimulation with something new and appealing to quicken their action into doing the right thing at the right time and in the right way. Just now one of the supreme needs of the nation is to teach the gospel of work, of production.

The idle hand is just as good a tool for the devil as is the idle brain, and when the idle brain and the idle hand are combined, as at present with hundreds of thousands of men on strike, with turmoil everywhere under the leadership of the Bolshevists and the anarchists, the devil is reaping his greatest harvest. The whole country needs a rallying cry to offset this situation and to make men and women everywhere study the questions connected with work and efficiency and production.

The food production of the country is less than our requirements based on our production in former years, and yet millions of people in Europe need our help in order to keep them from starving.

Hundreds of thousands of people are idle when they should be at work producing the things that the world is clamoring for, increasing their own income, adding to their own happiness and adding enormously to the happiness and the contentment of the people of the whole country.

The devil is busier at work than ever before. He is active in every idle brain, and he is using every idle hand, seeking to strike down law and order and civilization, and all that makes for righteousness.

Atlanta has made a good move to help to arouse the nation to think on the other side and to think of production rather than of idleness and waste. "I Am Producing More" is one good motto. Doubtless many other schemes of a similar character will be fathered by others. If millions of minds are put to work devising ways and means to interest the people in producing more and saving more, we will have taken a long step on the right road which leads to national prosperity and national happiness.

THE MAN WITH A JOB.

THERE is a solid and timely sermon in a little paper-covered book, "The Man With a Job," from the pen of Wightman D. Roberts of Huntington, W. Va., presenting as it does the reflections of an average workman concerning the specious but deceptively attractive utterances of socialistic, bolshevistic or anarchistic individuals who would for their own advantage seduce him from his job to make him an atom in a socialistic (or other) state of which they would be the general managers. He says that while they talk and write he gets hot and for a little while feels ready to "throw off the yoke," as they express it, but when he reflects he realizes that their portrayals of a different status for everyone, with everybody better off than before and inequalities removed, are but visions and he develops a "conservative streak," one which he can see in the Socialist leaders themselves just as soon as they get jobs. He has noticed that they do not vote away their jobs, and that "we'll have to pay their salaries." Consequently he declines to throw his job "into the common jackpot," as he expresses it, and sticks to his job. He admits that things might be better for some of us, himself included, but he realizes that "there will always be bottom as well as top rounds on the social and industrial ladder, and one generation of us after another mounts from the lower to the higher," so he sensibly concludes, "but I'm not going to kick it out from beneath in the hope that I will remain floating in mid-air." Furthermore, as to common ownership of things as proposed, he says: "I don't think it is honest to take what a man has worked for and saved up and divide it among a lot of deadbeats that I know, even if it is done through the Government." Again, "I'm a man with a job, but I'm not a man with a hoe, bowed by the weight of centuries and gazing on the ground. I stand upright on my own hard-won round of the ladder with power of choice and a determination to use it."

This is common sense; nothing visionary or chimerical about it. The man who pursues the course it indicates walks on solid ground. He realizes that human affairs are making steady progress; that the conditions of living for the great masses of our population have made constant progress for very many years; the inventions and developments of the nineteenth century as well as those newer ones which have come to us in the present century and are still coming one by one, are having their effects upon every member of the human race, no matter where he may be, for the benefit of all. To overturn society, as the revolutionists propose, and put the train of progress upon another track, would be like wrecking a railroad train for the purpose of altering its course. Russia is now experiencing all the awful effects of a revolution, which was put before her people with all of the same specious pleas that are now used by Bolshevik advocates in America. Their utterances do not have much effect upon our educated elements, but among the half informed they are dangerous. Yet if everyone will use common sense they will perceive the falsity of the Bolshevik ideas and spurn them for the frauds that they are. The peril of the present situation is that these half informed do not realize that many of the strike movements which agitate parts of our country were deliberately begun by the Bolshevists, not to benefit labor, but to put themselves in governmental positions of power for their own advantage and none other.

ARE YOU FOR AMERICA OR FOR THE RADICAL REDS IN WASHINGTON AND ELSEWHERE?

JUDGE GARY, in his demand for the open shop and in his refusal to arbitrate the steel strike, stands for American government and civilization against Bolshevism and revolution.

Any man who opposes Judge Gary's position is, intentionally or unintentionally, a co-operator with Foster and his crowd of revolutionists, who have mobilized the aliens who cannot speak our language for the express purpose of overturning what Trotsky called "the dirty, rotten Government of the United States."

On one side stand the men who, like Judge Gary, are determined to save this country from revolution; men who know that arbitration with revolutionists would be giving countenance to these criminals.

On the other side stand the men who, because of their revolutionary desires, their affiliations with revolutionists, or their socialistic trend, or their weak-brained, moral spinelessness, are willing to endanger the permanency of the American Republic.

There is no middle ground.

Trotsky, Foster and all the gang of revolutionists and syndicalists and Bolshevists are the leaders on one side. All who follow them are of necessity in their army of destruction, it matters not whether they claim to be patriots or not, for if they claim patriotism it is false.

On the other side are the true Americans who are determined that this Government shall be saved, and that Trotsky, Foster and the gang of rotten-hearted Bolshevists who would gladly cause this country to welter in blood in order that they might rule over the ruins shall be defeated.

The labor unions have permitted the radicals to get control of them, or, at least, of a large number of them. It behooves every honest labor-union man to come out and stand up for his country against the aliens who are seeking to destroy it.

No one should have been surprised at the statement made in Congress yesterday by Senator Watson that the Federal Trade Commission is full of Socialists and Anarchists and Reds. All Washington is full of Socialists and Reds and Bolshevists, and the Departments are largely rotten with Socialism. At the moment of dictating this there comes a letter from a genuine American, who is a clerk in one of the Washington bureaus, in which, referring to the fight of the MANUFACTURERS RECORD against the Socialism of the hour, urged on by the American Federation of Labor, he writes:

"There is a development of the question to which your attention may or may not have been called and of which I wish to speak. Some five or six years ago Congress passed a law allowing Federal employes to form unions affiliating with the A. F. of L. Organizations were already in existence and new ones were formed and throve more or less, but did not attract any particular attention until the last few years, when the A. F. of L. claims to have won for the Government employe the $240 bonus granted to those of them who draw a salary of $2500 or less.

"For this mess of pottage, and in hopes of more, the Government employe has sold his heritage and gone over bag and baggage to the American Federation of Labor. The cancer has eaten into the service to an extent you would not believe possible and high officials have joined and encouraged it in their bureaus.

"To me it seems, as I told them, little short of treason for a Government employe to join an organization which has in the past found itself, and most certainly will in the future again find itself, in direct opposition to the Government.

"It is an astounding fact that the Government Printing Office is a 'closed shop,' and has been for many years.

"I hope you will find this matter important enough to receive your attention if you have not already considered it."

Senator Watson did well in opening up the rottenness of the situation as to the Federal Trade Commission and showing how Reds and Socialists and Anarchists are active in that organization. But it is time for the people of the country to know that the spirit of anarchy and Socialism permeates the entire atmosphere of Washington, and has done so for several years. Otherwise, Mr. Samuel Gompers would not have been such a dominant figure in the situation for the last few years.

A NATIONAL BANK SETS A GOOD EXAMPLE —LET OTHERS FOLLOW ITS LEAD.

ONE trouble with the country is that it has a professional writing class, and this class is recruited largely from the colleges. The colleges unfortunately have to teach theory, and the graduates who drift into journalism seem to be strangely averse to ever having those theories rectified by practice.

The mental pap the public is given to eat by the newspapers is too often simply the product of chair-philosophers who never solved a practical problem in their lives. The President himself is a very good example of what actual contact with the world can do in the way of educating expert academicians.

When the Harriman National Bank of New York diversified its advertising recently to the extent of actually explaining why there was a sugar famine, it caused such a sensation that the press associations carried a digest of the text as news matter.

It was one thing for newspapers to accuse the Government of extravagance, but what was the world coming to when a staid bank openly charged in a public advertisement that "the Administration, responding to public clamor and strike threats, has started an inquiry through the Department of Justice to ascertain the reasons for the high cost of living, but from this single manifestation of prodigality (the sale to France of $1,750,000,000 worth of property for $400,000,000) it is obvious that the inquiry need not go far to discern that the high cost of living is in a great measure due to the inefficiency of official Washington."

The Harriman National Bank has in fact set an example which business everywhere should follow. If business men who see and know of inefficiency and wastefulenss in the Government will come right out and say so; if they will do something of their own account to set the public right and teach the truth, much of the misinformation and morbid propaganda which sets the country on edge will be more than countered.

"The Harriman National Bank would like to know the reason for this particular salvage."

Let some other national banks and other business houses demand also the reason for other extravagances in Government and it will not be long before Government will cease to be extravagant.

PROSPEROUS NEGROES IN MISSISSIPPI.

J. T. EVANS of Prairie, Miss., writing to the MANUFACTURERS RECORD in regard to a new bank that is being established, says:

"We really do not need anything, as we have bought everything, and only want the good-will of the people, as we are about ready to begin business. As this is in the black belt of the prairie section and the lands are going up each day, I cannot see why this bank will not grow as fast as the alfalfa grows all around us. The negroes have more money now around here than the white people used to have a few years ago, as nearly all of them have nice bank accounts. I saw one today put $500 in a bank, and she asked me if I would "sign them papers to get it when she wanted it again." Really she could not read her own name, but she had saved that amount in the past few months."

THE OPEN SHOP STANDS FOR FREEDOM.

FOUR hundred business men of Beaumont, Tex., have formed an organization to stand for the open shop and for freedom of American workmen and their independence from the domination of unions which seek to prevent other men from working unless they work under their control.

In the by-laws adopted by these 400 business men in an open meeting it is provided that any member violating the principles of the open shop for which the organization stands may be fined in any sum from $500 to $1000, in the discretion of the directors.

In the declaration of principles as reported in the Beaumont Enterprise this organization is formed to foster and protect the business and industrial interests of Jefferson county and the adjoining territory, and to establish equitable industrial conditions for employers, employes and the general public, and for the following purposes:

"To prevent and avert industrial disturbances; to harmonize differences between employers and employes, with justice to all concerned and to insist in the enforcement of the laws of the land.

"To oppose restriction of output, sympathetic strikes, lockouts and boycotts and illegal persecution of individuals, all of which are a menace to the industrial progress of our community and our country and tend to the undermining of constitutional rights.

"To secure for employers and employes the freedom of individual contract in the matter of employment. To insure everyone his right to earn a living regardless of his membership or non-membership in any organization.

"To prevent any interference with persons seeking through honest effort to work and earn an honest living. To protect everyone in his lawful right to conduct his business or affairs as he deems proper, so long as he does not encroach on the rights of others."

In order that there may be no unfairness whatever in the operations of this organization, it was decided that members who have labor contracts will be required to live up to them until they expire by limitation, and then they will be required to adopt the open shop.

In the list of signatures of the 400 who formed this combination, and which will doubtless be largely increased as it gets into operation, is included every line of business—manufacturing, mercantile, retail trade, automobile concerns, drug stores, bakeries, real estate agencies, and every other activity in the life of the city.

One by one the cities of the country are beginning to realize that the open shop is the only salvation for America.

The closed shop means the destruction of all independence, and ultimately of the Government itself.

The open shop stands for human freedom: the closed shop for radicalism and the destruction of the American Government.

ONE WHO VOICES HIS SENTIMENTS.

MR. WILLIAM HEYBURN, president of the Belknap Hardware Manufacturing Co., one of the greatest business institutions in Louisville, in a letter to the MANUFACTURERS RECORD writes:

"You and I entertain somewhat similar views on the League of Nations. You might be interested to read a copy of a letter that I received from one of our far Southern salesmen, which I attach."

The letter from this salesman is as follows:

"Please allow me to congratulate you on your telegram of September 19 to George W. Wickersham, Dodge, McCormick and Straus, where you not only refused to subscribe the thousand dollars asked for, but expressed yourself in no uncertain terms in regard to the Peace Treaty and League of Nations in its present form.

"I feel it an honor to be connected with a firm whose head has the courage to express his convictions in this manner."

A Ringing Call to Americanism*

By B. F. HARRIS, CHAMPAIGN, ILL.

I WANT to speak tonight for that old-fashioned but only worth-while American who takes his stars and and stripes, his George Washington and Abraham Lincoln, seriously and straight, and so strengthens his Constitution and his Country.

I want to speak for a return—if we can find our way back—to first and fundamental principles with new ideals.

I want to speak for those who have sane ideals for this nation as well as for themselves and every being in its borders, but who realize that these practical ideals cannot be accomplished, and that there is no true freedom, but in steadfast obedience to righteous law.

I want to speak for the great, unorganized, long-suffering public and its welfare—forgotten by absent and abstract statesmen; neglected even by the vote-hunters. I want to speak for the great army of industrious, intelligent, independent, inarticulate, unorganized, un-unionized, unrepresented, but all-American every-day workers.

I want to speak for the "equality of opportunity" of the American Constitution—that means the open door, the "open shop," the open and equal chance to all within its jurisdiction. I want to speak for the Government getting out and staying out of all political possession and ownership of business. Likewise, for its keeping organized business or labor or class from attempted control, dictation or domination.

I want to speak for harder work, more efficiency, more production and reward accordingly—just as our Lord made clear in the Parable of the Talents.

I want to speak for more and all men who want to run their own private business and do by it and their employes as they would be done by. For those who realize that in their neighbor's prosperity lies their security.

I want to speak for all those of us who want to do our part of the world's work under our Constitution, and under a concert or court or League of Nations that can, ought and will be kept, morally and legally—as opposed to abstract, altruistic, idealistic, indefinite, intangible, impractical schemes that a world, influenced by selfishness, cannot abide by.

I speak for the good in the League of Nations, as for the good in organized labor, but absolutely against arbitrary aggression, dictation and usurpation on the part of the head or sponsors of either of these or of any other organization or movement among us.

I speak for an unadulterated, one hundred per cent Americanism of the time-tried type; for an upstanding, self-respecting, clear-thinking and speaking, resolute, unflinching, hard-hitting Uncle Sam, standing four-square on the greatest of human documents—the American Constitution.

I want to speak for a national leadership that has the fear of God and the final wrath of the American people in its heart, and that will put that fear into the souls of all wrong-minded and hearted men among us.

*Extracts from speech before Chicago Rotary Club September 25. Mr. Harris is president of the First National Bank of Champaign.

"AMERICA FIRST AND AMERICA FOREVER"

A DECLARATION OF PRINCIPLES

By the Citizens' Patriotic League of Covington, Ky.

First—We believe in the Constitution of the United States as the written basis of the most perfect system of government ever devised by the mind of man.

Second—We believe in the flag of our land as the perfect emblem of that for which our nation has always stood—liberty, equality and justice to all over whom it waves.

Third—We believe that these privileges are the equal property of every citizen of this country, without reference to his ancestry or birth, and that, therefore, his country has the right to demand of him his undivided allegiance in peace and in war, under all circumstances, likewise without reference to birth or ancestry.

Fourth—We believe that in the hour of danger the Constitution and the flag demand the loyal service, and, if need be, the life of every citizen of these United States, and that the man who, in such an hour, withholds either service or blood is a bastard citizen and no true son of America.

Fifth — We believe that the danger to the nation and its principles is greater and more insidious today than at any hour during the active hostilities of the recent past.

Sixth—We believe that this danger arises from several sources, namely:

(a) German propaganda which is ever with us, albeit under a new guise each day;

(b) Appeals to racial prejudice in political effort, which we unqualifiedly condemn as un-American and therefore dangerous;

(c) Socialism, whether radical or otherwise;

(d) The presence of millions of illiterate foreigners, incapable of comprehending or appreciating either the principles or the blessings of American institutions, and forming a most ready and willing agency through which both German propaganda and Socialistic principles are disseminated;

(e) Weak-kneed or conscienceless politicians, who skillfully refrained from offending the traitors amongst us during the war and are now striving with might and main to gather the practical fruit of their treasonable cowardice;

(f) Citizens of any class who put party before principle, or prejudice ahead of the weal of the country.

Seventh—We believe that the salvation of the nation demands that America shall be Americanized, letting the process hurt whom it may.

Eighth—To this end, we believe that certain radical steps of re-construction must be immediately adopted:

(a) Resident aliens of all nationalities who are incapable of appreciating the blessings of our institutions must be deported;

(b) Foreign-born citizens who have proven their unfitness for citizenship by either open disloyalty in word or deed, or by seditious inactivity in the times of war, must have the rights of citizenship withdrawn and they likewise must be deported;

(c) German and all other modern foreign languages must be banished from all elementary schools and from public print and public speech alike, save where they are employed for the purpose of Americanizing foreign-born people not yet acquainted with the English language;

(d) All methods and plans for Americanizing our foreign-born population must be directed by Americans whose antecedents and environment has given them a clear conception of the principles of American institutions;

(e) All immigration must be immediately suspended for an indefinite period.

Ninth—We believe that German propaganda must be destroyed, and with it all of the spawn which it has produced—social revolution; pussyfooting politicians who seek pro-German support; race agitation and agitators.

Tenth—We believe that the ballot is the one and only constitutional means by which Americans can secure needed changes of governmental policy and purpose and that the honest and intelligent use of the ballot in placing in position of responsibility only loyal Americans, without reference to ancestry, will effectually safeguard our inherited rights.

Eleventh—We believe that all attempts at coercion in the control of the Legislative, executive or judicial departments of the Government are un-American, treasonable and pregnant with unspeakable danger to the nation.

Twelfth—We believe that the hour has come when every loyal American who values his inheritance of liberty and loves the flag of his land must put country first, and, forgetting other affiliations, join hands with every loyal citizen to free America from its present peril.

Then, God helping us, all else forgot, we pledge our hands, our hearts, our lives, our services to America first and America forever.

NOTICE.—*If these principles are your principles,* send your name and address to the Citizens' Patriotic League, Box 183, Covington, Ky., and a copy will be supplied for your personal use.

Economic Conditions in Europe and in America as Brought About by the World War

No. 2.

By FRED. H. WAGNER, Late Lieutenant-Colonel, Ordnance Department, United States Army, and Member of the United States Fixed Nitrogen Commission to Europe.

[On July 22, 1915, Mr. Frederick H. Wagner of Baltimore, one of the most widely-known chemists in America, who had made many extended visits to Germany, wrote for the Manufacturers Record an illuminating statement as to our dependence upon the German dye industry and the danger which confronted us by reason of that situation. Mr. Wagner was at that time chief engineer of the Bartlett Hayward Company of Baltimore, which during the war employed over 20,000 hands in producing shells and other war work for the Government. When he saw that America must take part in the war, he resigned his position and offered his services to the Government. He was commissioned major in the United States Army on May 3, 1917. His first assignment was that of supervising inspector of high explosives. Next he was assigned to the nitrate division as chief of Research Section B. In August, 1918, he was made director of operations, nitrate division, in which position he had direct charge of the fixation of atmospheric nitrogen plants operated by the War Department.

He was promoted to a lieutenant colonelcy on October 5, 1918, and was appointed a member of the United States Fixed Nitrogen Commission to Europe in May, 1919. He has only recently returned after a very thorough investigation of nitrate production and a study of many battlefields. As a business man of the highest standing, a chemist of world-wide connections even before the war, and an army officer whose work for the Government ranked with his pre-war work in civil life, Colonel Wagner's statements carry the weight and accuracy of engineer and chemist, the business man and the army officer.—Editor Manufacturers Record.]

In my last article, "The War after the War," I took occasion to call attention to some of the economic conditions prevailing in Europe, and in this series I will try to elucidate these conditions and draw a parallel with those confronting us in this country.

I was in Paris on June 28, on the so-called "Peace Day," or the day on which the German delegates were to sign the peace terms at Versailles after four years and 328 days of war. This day was also the anniversary of the assassination of the Austrian archduke, Francis Ferdinand, at Sarajevo, the signal which caused the Germanic Powers to plunge into this most infamous of wars. The terms were placed before the German delegates in the "Hall of Mirrors," the room which had seen the birth of the German Empire, for it was here that Count Bismarck proclaimed the then King of Prussia, William I, Emperor of Germany, and it was in this same room where the once proud German Empire was, for the time being, to renounce its desire for world dominion. Gone was the dream of "Mittel Europa;" gone the possibility of commanding a direct connection by rail from Berlin to Bagdad, with its consequent spread of Germanic influence through the countries traversed by this proposed line of steel rails.

It is not at all remarkable to note the spirit of distrust which was exhibited by Herr von Haniel, the German representative, when he bluntly asked M. Clemenceau if the copy of the treaty which the German delegates were to sign was the same in word and spirit as the article which had been shown him, von Haniel, on June 16, requesting that this momentous document be placed before him for examination before its submission to the German delegates; nor is it remarkable to note that Clemenceau just as bluntly refused this request, but he assured von Haniel that no changes had been made.

The delegates arrived, and the terms were signed, followed by the illumination at night of all the public buildings, while the Place de la Concorde was bright with the flare of Bengal lights and the searchlight on the Eiffel Tower sent its broad beams over the city, ever once in a while seeking out the Strasbourg monument, which had been draped in mourning for 40 years, in an attempt to show the people that the signs of mourning had been removed, and that the statue was now draped in garlands of victory. At 8.30 in the evening torchlight processions, made up of infantry, cavalry and firemen, paraded through the streets, and bonfires were lighted on all the principal peaks of the Vosges mountains to proclaim to the far-distant parts of France the joyful news: Germany had signed the terms of peace! The joyful crowds in the streets of Paris reigned throughout the night and far into the morning, nobody seeming to weary in the compact throngs which surged up and down the avenues singing "The Marseillaise."

Peace terms were signed only because there was nothing else for Germany to do. Their army was rapidly disintegrating, due to the sledge-hammer blows of the Allies during the three months preceding the armistice, and although not ready to publicly acknowledge it, all Germany knew that she had at last come to the final stage of this devil's dance which she had so recklessly inaugurated. The question of continuing the war and bringing home to the Germans the same terrors which flaming cities had impressed upon the French and Belgians is debatable, as many more lives would most certainly have been sacrificed with a continuance of the war, but from the viewpoint of many civilians as well as of the soldiers on the lines, and I had a son there, the armistice was all wrong, and the men behind the guns were all anxious to advance while they had the Hun on the run; but Fate decreed otherwise, and Germany was left unmolested, her peaceful villages and towns drowsing along as if war had ever been far removed from the thoughts of her inhabitants.

Let no one imagine, however, that the German signature to the peace terms on June 28 spelled the fact that some miraculous, some wonderful change was to take place in this world, and that the world which had for years witnessed the butchery of the war demon was suddenly to become a contented, peaceful, happy world, and that the mere signing of this document would prevent the creation of future troubles. This is borne out by the statement of the Germans to the effect that the treaty would last only as long as would the "rule of violence," or the military superiority of the Allies, and I have as yet not heard a German express the slightest contrition for the crimes committed by his people against humanity.

We are dealing with a defeated enemy who refuses to admit his defeat, and one whose future is born in the thoughts which engender "appropriate revenge for broken promises on the part of the Allies." The difficulty here lies in the psychology of the German mind, which realizes that had the Hun won the war he would have treated his enemy with savage cruelty, and as we did not treat him in the same manner, he cannot understand why we claim to be victors; in his present state he squeals about our cruel terms, and had we possessed sufficiently degraded minds to act as would the triumphant Hun, he would have far more respect for us.

The question therefore arises as to whether the collection of "autographs" appended to this momentous document on June 28 will really have the value which some of our optimists desire to place on it. Let no one doubt but that the German will in all probability in the future give us all the trouble possible, and after the Peace Treaty has become an accomplished fact, after it has been accepted by the nations in question—and it will shortly become active, as England, France and Italy have accepted and are ratifying the terms, without waiting for confirmatory action on our part—the German nation will not be any different from what it was before and during the war, except that it is highly probable that German competition in the world's markets will make commercial life more strenuous than we at present imagine.

The question of the Peace Treaty is no longer an academic one which the United States can debate on this ground, for with ratification by Italy and France, as well as by Great Britain, the treaty, as stated before, becomes an established fact, and the League of Nations becomes operative.

If we accept this treaty with its child, the League of

Nations, without any reservations or amendments, it will not require a clairvoyant to determine in what manner we will depart from the road which we have consistently followed since our great republic was founded.

With the troubles now existing as regards Fiume, with those prevalent in East Prussia, in Lithuania and in stricken Armenia, the answer is written in large letters, and these letters spell further trouble. It is therefore to be hoped that Congress will retain the right to withdraw from this league at any time it sees fit, and to be able to do this without violating either moral or legal obligations, as it is absolutely necessary for our future interests that we be free from the entanglements of European quarrels or politics, and that we be permitted to determine for ourselves to what extent we shall assist in enforcing the decrees of the league, and especially so in matters upon which we should be sure to reserve perfect freedom in our actions.

I left Paris on July 3 on my way to the Rhine Provinces, and visited Vaux, Chateau Thierry, Rheims, Soissons and many intermediate, desolated towns on my way to Sedan; from Sedan I passed on to Stenay, where the German Crown Prince had once had his headquarters in the Chateau Tilleul, and then on through the blasted Argonne district, where, at Pierre Croisee, I climbed through the most remarkable and ingenious system of concrete trenches and dugouts; then on through Locheres, Claremont, Vreincourt, Recicourt, Dombasle, Blercourt and Regret to Verdun, where the cry of the Poilu "On ne passe pas" became immortal, where the city still stands inviolate upon her ruins, where her heroes, both dead and living, gained immortal fame through the months of resistance against the Hun onslaught.

In an examination of the results brought on by this hellish war, I thought that the destruction in the Chateau Thierry salient was bad, that the Argonne was worse, but the conditions existing in the Verdun district pass all human understanding, and it will require several generations to even try to make an impression on the reconstruction work required here.

At Moulin de Rouvres I found a "Wald Lager," a summer colony, where the Germans had constructed regular villas, summer gardens and a swimming pool, and where they retired for rest after having exhausted themselves while taking part in some hellish deviltry which they thought would be sanctioned under the conditions of war. Some there may be who, in a few years, can forget the crimes committed against humanity in France and Belgium, but no American who has passed through the scenes of these outrages will be counted among them.

I finally arrived at Treves (Trier), where the Germans delighted in robbing the United States Commissary warehouses, and where someone had stolen a bolt of army cloth, besides numerous other things, the day before, and from where I continued on through the Rhine cities down to Cologne. Upon completion of my official business in Germany I motored back to Paris via Belgium, going from Cologne to Aix-la-Chappelle (Aachen), Battice, Hevre, Liege, Namur, and crossed into France at Blanc Misseron; then on to Valenciennes, Cambrai, Massineres, Gouzecourt, Fins, Peronne, Villers, Carbonnel, Amiens, Montdidier, Clermont and Criel, observing the last damage at the latter town, only some 30 kilometers from Paris.

I know from personal contact what damage has been done, what desolations have been created, and I can never forget; my only object at present lies in the hope that these few lines will keep others, who have not passed through these scenes of destruction, from forgetting that the lust for world dominion in the mind of a nation whose philosophers had for years preached the doctrine of German "kultur" to a people who finally imagined that they had been destined by God to rule the world, caused this damage; but we must be thankful in remembering that the Being they worshipped and called on in their hour of need seems to have fallen a victim to lack of memory, for He deserted the Kaiser and his clan when they most needed Him.

So much then for the desolated conditions in France and Belgium as they exist, and upon which volumes might be written. I was also greatly interested in learning how the German cities, especially those which had been close to the scenes of conflict, had come through the war; I desired to establish the truth or untruth of the Hun's statement to the effect that hunger had materially weakened the staying powers of the nation; that children were undernourished and had starved; that leather for shoes was lacking; that proper material for clothes no longer existed.

I saw, and I was satisfied that many of these statements had been exaggerated and, like so many others, had been spread broadcast in order to create sympathy.

Some foodstuffs had certainly been lacking to a large extent in many cities, but I saw no one who looked as if he were wearing clothes 10 sizes too large for him; butter and fats were no doubt still scarce, as even during the time of my visit they were very, very sparing with butter, and upon demanding some of this article in a hotel it appeared, from the length of time required to procure it, that the butter must be kept locked up in the hotel safe.

As regards the children, I can truthfully say I saw none who appeared to have been undernourished, for they all seemed to be well fed and they scampered through the streets with as much joy and vim as before the war. The stores were filled with leather shoes, and I saw no substitute for clothing material in use, although I was told that these substitutes had really existed; but linen tablecloths and napkins were not in evidence, the tables all being provided with paper napery except in the "Coblentzer Hof," American Headquarters in Coblentz, and in the British officers' mess in Cologne.

The shops in the occupied cities were doing a rush business, and the cafes, theaters and "movies" were well patronized, but the people were, as a rule, very sober and quiet. Their public attitude towards the Americans exhibited a very conciliatory spirit, as they looked towards us to assist them in their present difficulties, this attempt at good feeling perhaps being assisted by the memory that they had relatives and friends in America, and possibly they may therefore not have felt as illy towards us as they did towards the British and the French, at least I am willing to give some of them the benefit of the doubt, as all of Germany's citizens cannot be placed in the same category as the one in which the ruling cast now lives.

In speaking to men with whom I had business they invariably informed me that they hoped this disagreeable condition might soon be ended, and that agreeable relations between Germany and the United States might quickly be re-established, and yet I could not help but feel in many cases that this was business talk, and that they had reservations in their minds which painted us as their worst enemy.

I therefore anticipate that the hand of good-fellowship will soon be extended towards us, not because of any desire to ask forgiveness of the world, but because they have goods to sell which, combined with the remembrance that their relatives and friends over here were not mistreated during the war, will make them attempt to be very agreeable as was evidenced by the fact that all inquiries directed at the German manufacturer by me regarding his methods of operation, as soon as it was explained to him that his answers were not intended for commercial exploitation, were given truthful answers, and all his answers could be tested as to their truth, this condition lightening our labors considerably, as our Commission had quite some work to do and false answers would have confused us seriously.

In my article in this journal during the fall of 1914, on the dyestuff situation, I attempted to point out the business methods of the Germans as well as the necessity of protecting the then infant dye-industry in this country against these methods; the American dye situation worries the German chemical manufacturer exceedingly, as he continuously inquires if it is true that millions of dollars have been invested in that industry over here. He is at last afraid of American competition, because the war has taught him that we have the money and the men to organize and operate vast concerns which with proper national assistance during infancy, can put up a pretty stiff fight against their own most wonderful combination, and this national assistance will not be required after the infant industry has been placed upon its walking feet, after which time no more will be asked than is accorded any other manufacturer.

A great portion of the money expended in establishing the dye industry has been paid out in making practical on a large scale the work performed in the laboratory and of the hundreds of dyes formerly imported from Germany it is questionable if there were more than a dozen which could not be reproduced here on a laboratory scale. It must be remembered, however, that our dye industry is a child born of the war and, owing to the former ability of the German manufacturer to dump his surplus products on our shores, he controlled our market and virtually dictated our entire business policy in this particular.

As an example of the pre-war German's business methods and

ethics, it may be mentioned that the Benzol Products Company started business in 1910, and proceeded to manufacture the so-called "intermediates" required in the production of coal-tar dyes, and which intermediates had heretofore of necessity been imported from Germany; at the time this new company was prepared to place aniline oil on the market this material, from Germany, was selling for 11½ cents, which price would have netted the American manufacturer a comfortable profit. The product of this new concern was hardly on the market when the price of the imported article dropped to 10, to 9 and finally to 6 cents, effectually cutting out all American competition; after it had become impossible for the American concern to do business, the German price was again advanced to its old level but in the meantime our "friend" across the ocean had gained his point and again controlled the market.

Are we going to subject ourselves to like conditions again? Are we going to permit the Hun who, to gain his ends during the war, did not fail to stoop to any hellish, fiendish act to bring terror and sorrow upon his opponents; are we going to permit him to again cause our infant industries to go into bankruptcy so that he can control the markets which have always been his over here, the chemical, drug, optical glass, potash, alloy steel, chemical porcelain and scientific instrument markets, which are now established and which have all the ear-marks of future success? Time alone will tell, but the indications seem to point to the fact that in Europe he will soon be doing business again at the old stand in the countries of his victors.

The dye industry, as well as the production of other necessities, is now well under way, and, besides making us free of Germany, it also adds greatly to our military preparedness program, because these dye plants can be turned over to the manufacture of high explosives within twenty-four hours, a fact which the Germans always knew and which formed a part of their military program, and upon which they greatly prided themselves. The American manufacturer and chemist have done their part in establishing methods for converting laboratory experiments into practical operations, and this at large expense, I being informed that one large corporation has already expended $1,000,000 on experiments alone, the only present need then being national protection by an act of Congress.

But when and how this national assistance, or protection, will be given is still a debatable question, as there is quite a difference of opinion in Congress as to the manner of safeguarding this industry, the claim being made that not sufficient is known regarding the difference in cost of manufacture in Germany and here, and that if this difference were known at the present moment, it would not be of value in reaching a decision because it will be bound to vary as weeks and months go by. The wisdom and necessity of maintaining the dyestuff industry is well recognized by Congress, and it is proposed, but not as yet enacted, that a license system for the importation of dyestuffs be established during this period of transition from abnormal to normal conditions.

Under this proposal the Tariff Board shall constitute a license board, and that no license to import shall be granted within two years unless it can be definitely shown that the goods cannot be obtained here at a reasonable price. This would protect the manufacturer, as it is confidently hoped that this new industry can be firmly established within two more years, and, at the same time, it will prevent the manufacturer here from demanding exorbitant prices for his goods. Let us hope that this protection will be given before Germany has an opportunity to invade our market again.

It may be well to mention here one of the conditions existing in the German chemical industry, one which no one would dare to try to introduce in our country, but one which gives the manufacturer an advantage over his employe, of course to the detriment of the latter, a condition which can exist only in a land governed as Germany has been; what the future will bring forth in this particular is another question which the new spirit, which it is to be hoped will now animate Germany, alone can solve. A young chemist upon leaving the university, accepts work in the laboratory of some large manufacturing concern, and when he accepts that position he signs away his future to a large extent; if he makes good, he receives promotion with increased pay, but a species of "blackmail" exists in the fact that if he should at any time seek to join forces with some other manufacturer, this wish is immediately made known to his employer by the prospective employer, and unless the former consents to release him, he not only finds himself barred from employment in his desired new location, but, except in exceptional cases, he also loses his present position as punishment for having dared to attempt a betterment. Would such conditions be tolerated over here? I think not. But the German seems satisfied with this; at least he does not murmur loudly.

In Germany the manufacturer advises that he has no doubt there is a market for his goods in America, and he feels that the American Government will not place any obstacles in his way when it comes to doing business, finally urging upon all Germans the necessity of speedily coming to their senses and realizing that intensive work on the part of all will be required to make a resumption of export trade possible.

This feeling is further engendered by the belief that the Allies will not continue to wage any sort of economic war against Germany, and that the once loudly heralded cries of commercial ostracism against Germany are now relegated to the scrap heap, because, he says, the nations most interested now realize that in order that Germany may pay the immense indemnities saddled upon her she must be permitted to again exercise her industrial and commercial capacity to the utmost.

The British Board of Trade is reported as even now reminding British merchants that they are all at liberty to again trade with Germany, and even urges them not to miss the "opportunity which their competitors in half a dozen other countries are eager to seize," and all of this in spite of the old cry never to purchase German goods, never to sell any goods to the German, and never again to shake a German by the hand!

This may be very nice and profitable for the nations facing bankruptcy due to the war, and who must recuperate to some extent by means of the indemnity which the Germans can pay only if permitted to resume their interrupted commerce, but will that suit us? Will no restrictions be placed upon their former methods of doing business? Will unlimited trade be the answer to those of our citizens who have invested their capital in the chemical, drug, optical glass, potash, alloy steel, chemical porcelain and scientific instrument business, and who came to the rescue of the country at a time when we were down and out as regards these most necessary articles? I pray not!

France stands with England in this matter, as is seen from articles appearing in the French newspapers dealing with the resumption of pre-war business relations with Germany, these relations to commence as soon as the state of war is officially declared off, or as soon as three nations have ratified the treaty with its offspring, the League of Nations, saddled upon it, and as seen before, this formal proclamation of peace will soon be an accomplished fact in spite of our endeavor to make reservations or amendments compatible with our views of a non-entangling alliance in European politics.

Almost the entire French press is advocating trade with Germany as the sole remedy for rehabilitating the present low rate of French exchange. This is further accentuated by the statement of M. Klotz, the French Minister of Finance, in the Chamber of Deputies, that France "should buy from countries to the East, where the rate of exchange is favorable, rather than aggravate the position of France, Great Britain and the United States by increasing the balance of trade against France in those countries." Germany is not specifically mentioned by M. Klotz, but what other country could be meant?

It has now even come to the point in France when it is advocated that in purchasing from Germany the article purchased must be considered apart from the nationality and individuality of the seller, and that if the French merchants can profit from the advantageous offer of the Germans they shall do so, and this without "abandoning one iota of sentiment against the Germans."

I was told by a prominent French manufacturer that it was useless to try and open up many of the French factories again, because within five years France would be flooded with cheap German goods, and the factories would then perforce close themselves; also that French character would not permit grief over the loss of her sons and the devastation of her lands to stand in the way of a resumption of business relations again, because the material advantages to be gained by this resumption would outweigh all other considerations.

Do we feel the same way about it when the wooden crosses, concentrated in spots as well as scattered over

France, point accusing fingers unto heaven? And are we satisfied that some of our factories, under these conditions, may "perforce close of themselves"?

French character, however, is so peculiar that I presume France alone can understand it, for here we find them ready and most willing in the one instance, without fear of future consequences, to extend the hand of business good-fellowship to the German, while in another particular they express fear as to what the future may provide. This latter fear is due to the necessity of employing thousands of Germans in the rebuiding of her ruined towns, her devastated regions, fearing the consequence of numerous Germans within this almost deserted territory.

A great deal is being said about the lack of having used prisoners of war for work in these devastated regions, and I can witness to the truth of this, for the sight of German war prisoners at work in French territory, on reconstruction, was very rare. The opportunity for using these men under proper military surveillance for reconstruction work is gone, because they must soon be repatriated, and what they could have accomplished since November 11, 1918, is now a distinct French loss.

Instead of employing these men on necessary reconstruction work, they were permitted to work for people who used their labors for personal gain, and not for the profit of the nation. Only a short time ago the papers announced that France would release her prisoners as soon as the harvests were in, thus announcing publicly that many of these prisoners had been farmed out to the peasants where they were given a little wage in cash and in supplies, and where they soon surpassed the French peasant in productiveness. This in spite of the numerous idle men released from the army, but the soldier over there does not care to work just now.

One French newspaper, La Victoire, in referring to the productiveness of the German war prisoners, and in commenting on the placing of these prisoners among a favored few, says: "People whose business it is to flatter our workmen would not have the courage to make such a statement as this, but we prefer to state the facts."

The French fear that thousands of Germans will be left without hindrance in the partly deserted regions to exercise their influence upon the few remaining inhabitants, the influence of men "whose habits of discipline and persistence give them a force of action that unhappily is not possessed by all Frenchmen!" Can you beat it?

In order to make this condition clear, I cannot refrain from quoting from La Victoire:

"It would be humiliating and dangerous that in the coming year a new conquest of our Northern country should begin by a different process, but the results of which are perhaps more to be dreaded than those accompanying brutal war. The Workmen's and Soldiers' Councils in Berlin are already speaking of Franco-German reconciliation during the period when the devastated regions are under reconstruction. The loan of German labor forces is judged by them to be even more advantageous than the delivery of excessive supplies of raw material or a payment which could be made only with disastrous consequences to Germany. These Workmen's and Soldiers' Councils thus show a concern for the Fatherland which their brothers, the French Bolsheviki, do not share. They also indicate the elementary precautions we should take to prevent the liberated German workers in France from becoming a menace to our people. Furthermore, because of their deceit and trickery and their absolute lack of good faith, we shall be obliged to watch closely all the work they are set to perform. The fact that they are careful and diligent workers does not exclude their capacity for sabotage and intentional bad work."

Quite a peculiar condition when the material made in Germany is to be purchased and accepted at its face value in one case, and caution against "sabotage and intentional bad work" is expressed in the other. But France has lost her opportunity for doing much that could have been done in almost 12 months since the signing of the armistice, and the fears expressed above will be unavailing under conditions as they exist now.

A great deal of the reconstruction material required by France will not come from the iron mines, blast furnaces and steel mills of her northern territory, but rather from the German mines, furnaces and mills located in the Thionville basin, which are intact and which now become French property. The steel industry of France was almost utterly destroyed by the Germans in this northern section, and hardly a third of this property can be placed in operation again by the end of 1919, and what was not destroyed by direct gun-fire was dismantled by the Germans before their enforced retreat, and the equipment sent home for re-erection in Germany.

Besides this, the ore deposits possessed by some German corporations in Lorraine and in the Biey basin, as well as the steel plants in Kneutigen and Feutsch, is being sold to the French, and these formerly German-owned plants are now being brought into operation.

France has a stiff proposition confronting her steel industry, and it is to be hoped that vigorous action will soon make this industry operative again, because France will require an immense tonnage of steel for her reconstruction work and it is questionable, with conditions as they exist in America at present, whether we can supply her needs except to the detriment of our own necessities.

Before closing this article I wish to call attention to one other condition which came forcibly to my attention. According to the terms of the treaty, Germany must return to France and Belgium the agricultural and factory machinery removed and shipped to Germany during the war; in this connection I wish only to say that if the miscellaneous aggregation of scrapiron I saw piled up alongside the railroad tracks was the machinery being returned, and I was informed this was the case, it is high time for the French and Belgian authorities to get busy and demand something else, because the junk I saw is fit only for the melting furnace and has absolutely no value for use.

Immense Crude Oil Mill Planned for Memphis at Ultimate Outlay of Several Million Dollars.

Memphis, Tenn., October 19—[Special.]—Construction of a crude oil mill, designed to be one of the largest in the South, if not in the entire world, has been begun by the Union Seed & Fertilizer Co. on a lot here bought for the purpose a short time ago. The initial outlay will be approximately $500,000. Contract for the building was let to J. C. Barker of this city. The present plant will be abandoned and the machinery will be used to form the nucleus for the new mill, which is expected to represent an ultimate outlay of several millions of dollars.

Raymond Spencer is the local architect in charge of the plans. The contracts awarded to Mr. Barker are for building alone to cost more than $300,000. Another contract for a large power plant and boiler-house has been let to a New York concern, which will not only erect the building but will install the steam outfit.

Buildings to be erected now include a brickyard, 80x480 feet; feedhouse, 80x160 feet; hullhouse, 60x300 feet; meal and cake house, 60x420 feet; two-story brick office building, concrete reservoir, brick garage, power-house and a number of smaller buildings, all of which are to be of fireproof construction.

The new buildings are to house only the best and most modern equipment, and for the present will be used only for the making of oil from cottonseed, although it is learned that the company is to locate its general analytical laboratory here from the outset, and will have the largest and most complete chemical plant of any mill in the South.

Glycerine will be made from fats, and oils will be crushed from peanuts, soya, castor and other beans when the mills are finally completed. These plans, it is learned, were made some years ago, but were halted by the war and resultant labor conditions. The equipment for all portions of the plant has not yet been purchased. J. H. Turbeville is the division manager of the plant located here.

Chattanooga Manufacturers' Association Elects Officers.

Chattanooga, Tenn., October 17—[Special.]—D. Hewitt Wood, president of the Converse Bridge Co., was re-elected to the presidency of the Chattanooga Manufacturers' Association by the board of governors at their initial meeting of the new fiscal year. Three newly-elected directors attended their first board meeting—W. W. Gfrorer, C. A. Raht and T. N. Van Dyke.

C. A. Young of the Lucey Manufacturing Corporation was elected to succeed Walter Temple, who has just recently resigned, due to pressing personal business

The Manufactuers' Association will support the Chamber of Commerce in their drive for housing corporation, capitalized at $500,000.

The World's Largest Marine Terminal

By ZENAS W. CARTER, Secretary-Manager, The Material Handling Machinery Manufacturing Association, New York.

Rising in impressive magnitude on the waterfront of New York Bay, constructed under the stress and secrecy of war, is the world's greatest single terminal and distributing warehouse plant.

It is known as the United States Army Supply Base, Brooklyn, and is the largest of the Government's great receiving and distributing bases which have been erected at Brooklyn, Boston, Port Newark, Philadelphia, New Orleans, Norfolk, Charleston, Newport News, as well as in Chicago, St. Louis, Columbus, Ohio; Jeffersonville, Ind.; Pittsburgh, New Cumberland, Pa., and Schenectady.

While these bases are of great interest because of the undoubted importance of their bearing on the German collapse, they now more particularly claim our attention as timely examples of what can and must be done at our great coastal, lake and river ports and rail centers, if not only the opportunities but the actual and urgent requirements of the very near future are all to be adequately met, and our new-born merchant marine properly supported.

Not only in size do they dwarf kindred commercial developments of the past, but in them have been incorporated the practical working out of so many of the latest and best ideas of architects, engineers, warehousemen, freight handlers, and material-handling machinery manufacturers, that they demand the closest scrutiny and consideration of those concerned with provisions for meeting commercial developments which the competent and keen-visioned tell us are soon bound to far exceed anything in our previous experience.

The Brooklyn Army Base embraces about 100 acres from landward line to pierhead, over 15 miles of railroad tracks, which include storage for 1300 freight cars, and 8000 feet of available string-piece intended for loading simultaneously a dozen deep-draught ocean freight carriers.

There are two main warehouse buildings, "A" 200 feet by 980 feet, and "B" 240 feet by 980 feet, a mechanical and repair building, a four-story administration building, and three "transfer sheds" or pier houses, 150 feet by 1350 feet each, which function in the transfer of freight to and from the water carriers.

The warehouse floors contain over 4,000,000 feet of floor space and the transfer sheds one and a quarter million feet or a combined total of 116 acres. Including the transfer sheds for transient use, this affords actual storage space for about 15,000 carloads of goods.

Handling 15,000 carloads, or 300,000 to 400,000 tons of freight, on a 30-day turnover basis, particularly in these times of labor shortage, requires the utmost possible conservation of time and effort. The whole handling system of the Brooklyn plant is calculated to meet those big problems in freight and merchandise handling which begin and end at the shipside or car door and involve loading, unloading, plant movement both horizontally and vertically, and tiering.

In addition to the size of the plant there are several outstanding features which mark a great advance in merchandise and freight-handling equipment as well as in methods employed, and the progress in the art of vertical transportation as applied thereto.

The utmost practical utilization is made of various devices for the reduction of manual handling. These are automatic elevators, cranes and derricks, lifting trucks for picking up whole loads with one single operation and shifting to other locations, trailer trucks and both gravity roller and portable power conveyors.

It is an old warehouse maxim to "Keep the goods moving," and here too they are kept going between shipside or car door and the storage piles. However, not only keeping them moving but "Keeping the goods on wheels" is a fundamental and distinctive feature of this plant.

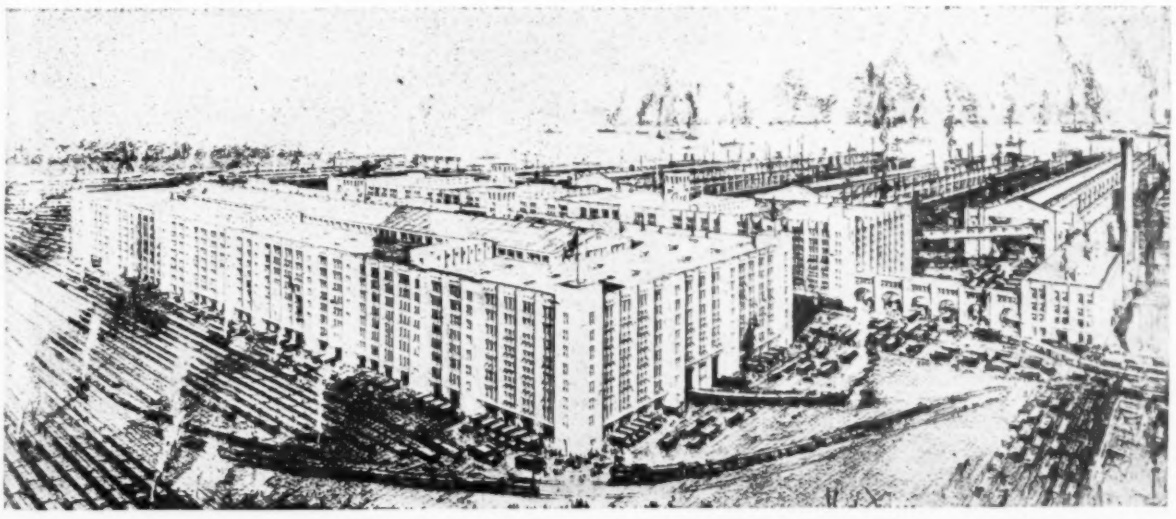
In this modern development everything is carried on four-wheeled trailer trucks, and here the goods which are carried across country by the trainload are also handled by the truck trains through the plant.

The trailers are moved horizontally by industrial plant tractors and vertically by means of one of the most original and highly efficient elevator installations ever devised. Goods are kept on the original trailers from loading point to destination, and handling is reduced to a minimum. The trailers are usually moved in trains of from four to five if loaded, and six to eight if light, and one man with a tractor handles the train. This should be contrasted with the string of handlers which would be necessary to move an equal tonnage with the old two-wheeled "baggage" trucks.

The tractors and trailer trucks are, of course, narrow gauge, and the trains are easily handled in the aisles and around the turns. For short trailer movements tractors are not used, as one man readily handles on a four-wheeled truck two or three times the average load of a two-wheeled hand-truck.

The whole plant is laid out in definite one-way traffic lanes, carefully calculated to afford maximum access and minimum congestion.

In addition to the yard movement this traffic system includes communication between the transfer sheds and warehouse "A" via three bridges which connect the second pier level with the third warehouse level, while additional bridges and subways under streets connect warehouses "A" and "B." This practically eliminates the necessity for tractors and trailers to cross the railroad tracks in the yard or streets, as the goods moving between the first pier shed level and the warehouse floors travel via the



GENERAL VIEW OF UNITED STATES ARMY SUPPLY BASE, BROOKLYN, N. Y., THE WORLD'S GREATEST SINGLE TERMINAL AND DISTRIBUTING WAREHOUSE PLANT.

pier elevators, the bridges, subways, and the warehouse elevators.

Speeding up and controlling the horizontal movement on one level, however, is not the most serious problem confronting most plant and warehouse managers. Comparatively few executives conceive the extent to which indifferent elevator service affects plant turnover, but as a matter of fact as the number of levels or stories increases, the elevators become more and more as the spout of the funnel and their efficiency the measure of the rate of the flow of goods.

This fact was given a great deal of consideration in planning the Brooklyn Army Base, with the result that an elevator plant with many original and ingenious features was devised.

There are in all 96 elevators, of which 90 are for freight and six for passenger service.

The 90 freight elevators are of 10,000 pounds' capacity—18 are located in the pier sheds, serve two floors, and have a speed of 100 feet per minute; 72 are located in the warehouses, serve nine floors, and have a speed of 150 feet per minute.

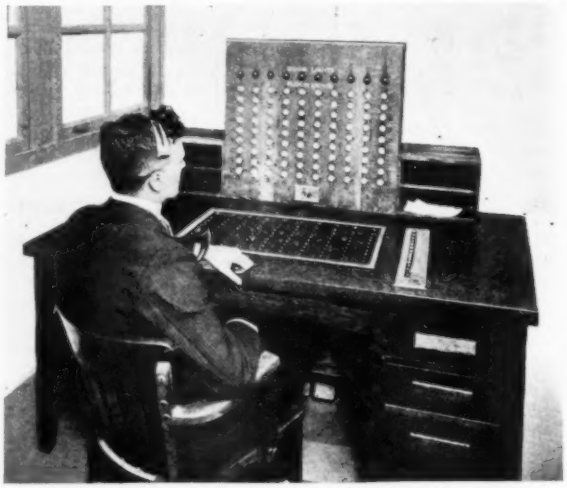
The elevator platform is 9 feet 4 inches by 17 feet in the clear and intended to carry four trucks. Automatic stops are accomplished wherein the elevator platforms invariably register accurately with the landing sills by means of an automatic levelling device, and the landing or hoistway doors are opened automatically when the elevator reaches the floor to which it has been dispatched. Operators on the cars are not used.

In a few old-time office buildings and hotels one finds the passenger elevators scattered about individually or in pairs, but modern practice groups them to secure the minimum waiting time between departing cars and to facilitate supervision. This same reasoning unquestionably applies to freight service, and the advantages of grouping elevators in industrial plants is conclusively demonstrated in the Brooklyn Army Base.

From seven to ten cars make up a group which serves a "section" of some 325 feet in length, of each building unit, and out of such a group one is reasonably sure of getting some one car to serve his needs without waiting for any particular elevator. In other words, with 10 cars in a group, the average waiting time will obviously be just one-tenth of what it would be if each car was placed separately.

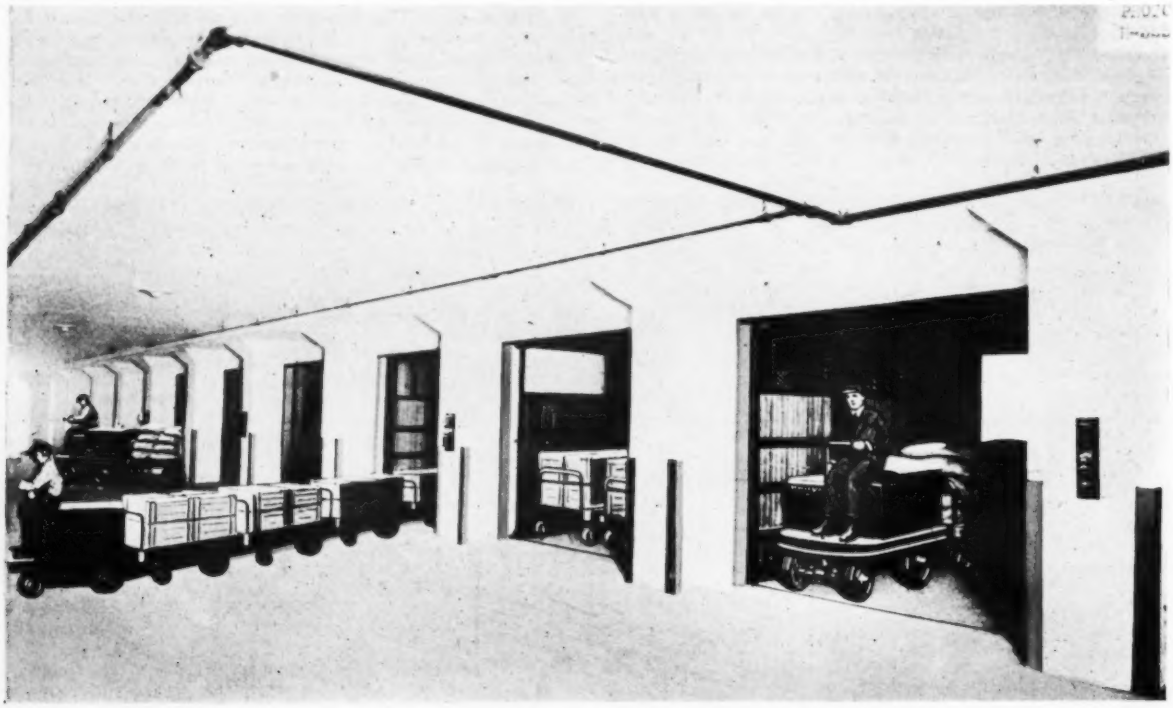
In the Brooklyn Army Base each group of elevators is handled entirely by a central dispatcher, who is located in a small office placed for convenience a short distance from the group. Before him is a table not unlike a telephone switchboard, with one upright and one horizontal panel. In the upright panel is a column of white lights for each elevator, each light representing a floor. At the top of each column is a colored light which indicates, when lighted, that all hatchway doors are closed and the elevator can be operated. The operating buttons are placed in rows in the horizontal panel.

The group system, in which the elevators are operated by a central dispatcher, instead of each elevator being placed separately and operated individually, gives the least waiting time and maximum service out of a given number of elevators. A central dispatcher, with a group of elevators under his control and knowing all the requirements, can get better service than can be obtained from the same or even a greater number of elevators placed singly and subject to both the varying intelligences and the loading tendencies of as many individual operators.



AT BROOKLYN ARMY SUPPLY BASE THIS ONE MAN OPERATES TEN "OPERATORLESS" ELEVATORS, EACH COVERING EIGHT FLOORS AND BASEMENT.

In general or miscellaneous service, which is the most difficult



GENERAL VIEW OF BANK OF TEN "OPERATORLESS" ELEVATORS. INDUSTRIAL TRUCKS AND TRAILERS RUN ON AND OFF. POSSIBLE BECAUSE ELEVATOR HAS "MICRO-DRIVE" FLOOR-LEVELING CONTROLLER.

to handle, the dispatcher receives calls for cars from the various floors. As an example, the dispatcher gets a call for a car from the seventh floor to take goods to the third floor. A quick glance at the vertical panel shows that car No. 5 is standing idle at the sixth floor, since its "6" white light is burning. The colored lamp at the top of the row is lighted, indicating that all doors are closed. The central dispatcher then touches "7" button and the white light disappears as the car leaves the sixth floor, and shortly signals arrival at the seventh floor by means of a light in bulb "7." As the doors open automatically the colored light is extinguished and the car is out of the control of the dispatcher and cannot be run until someone on the seventh floor touches one of the seventh floor "door-closing" buttons, of which one is on either end of the car and two others alongside the opposite entrances. As soon as the load has been run on and the door button pushed the doors close and the colored light again appears, signaling to the dispatcher that all is clear to go ahead. He then touches "3" button, thereby dispatching the car to the third or distination floor.

When certain elevators have been assigned by the dispatcher to regular or fixed service for a time, such as handling a trainload of flour going from the first level to the seventh, individual calls are not needed, for the lights alone tell the story, the appearance of both a colored and a white light in the same panel then indicating that the car is loaded, the doors closed and the elevator ready to be dispatched.

The central dispatcher can readily detach any elevator of his group from the operating board. It then can be operated directly from the car switch provided therefor, and still retain its automatic door-opening and automatic-leveling features. Until disconnected from the central board, however, the car switch remains inoperative.

Excepting for convenience, or when goods are being sent to a floor where no one is working at the time, no one needs to ride on the elevators for the purpose of operating the elevator or its doors.

The elevator equipment described in this article is an epoch-making development in the field of vertical transportation. It represents the product of years of experience in elevator design and manufacture, and is the result of the combined genius of engineers and inventors. It is a well known fact that with an automatic push-button elevator, in order to be adaptable for freight service where trucks are used for handling goods, the car platform must be brought to an accurate level with the landing and maintained there under all condition of loading and unloading.

A push-button controlled elevator has recently been developed which stops the car automatically with any desired accuracy and with any load within its capacity. When the position of the car changes during the loading and unloading, due to the lengthening or shortening of the cables, the car is automatically and quickly restored to the landing level. This remarkable accomplishment made it not only possible but more advantageous in this case to operate the freight elevators by a central dispatcher than by individual operators on each car.

This new automatic elevator is known as the "micro leveling elevator."

The hoisting unit consists of the main driving machine and the micro drive mechanism.

In the Brooklyn Army Base the main machine is of the worm gear type and is driven by a two-speed alternating current motor giving full and one-third speed. The "micro drive" consists of motor, brake and worm gearing of about one-tenth of the speed and power of the main machine. The micro drive is mechanically connected to the main machine through the revolving electro-mechanical main brake. The slow motion of the "micro drive" through the final few inches of travel in connection with a novel system of control, results in the car stopping level with the landing with any load to the full load capacity of 10,000 pounds, since leveling is accomplished at slow speed and by means of the small motor there is less wear and tear of mechanical and electrical parts than with an elevator of the ordinary type and the amount of power required for leveling is reduced to a minimum.

Micro operation is applied to car switch as well as automatic push-button control. In this case the operator throws his switch to the stop position on approaching the floor just as in the operation of the ordinary car switch control. If the car is within the micro zone, the micro drive functions and stops the car level with the floor. Although the micro or leveling zone extends eight inches above and below floor levels, in actual service the average micro movement is usually not more than three inches.

The doors are operated by an ingeniously arranged mechanism which automatically opens the doors at the floor to which the car has been dispatched and as the car approaches that floor. As the door operating machine starts to open the doors when the leveling zone is reached by the car, it is obvious that the leveling is accomplished while the doors are being opened and therefore no additional time is required for leveling.

The door-closing operation can be initiated only by touching a closing button either on the car or alongside the door opening on the floor.

The doors themselves represent a radical development in elevator hatchway doors.

Consideration of the trailer truck problem pointed the way to doors of maximum height and rising from fixed sills. Due to the high door openings and limited story height it was necessary that the door-operating mechanism be so arranged as to first move the door horizontally into the hatchway a sufficient distance to clear the sill and door above and then to raise the door vertically to clear the opening.

These doors are made of a steel frame with panels ¾-inch thick of sheet steel and asbestos composition.

In case of emergency, the cars can be run with the doors open.

Ships are unloaded in part on both piershed levels, and goods in transit between the warehouse and first transfer shed level reach or leave the latter on trailer trucks via the 18 automatic elevators with which the sheds are equipped. These elevators are operated individually by means of buttons on each floor and in the car. In all other features they duplicate the warehouse elevators.

The Army Supply Base was constructed for the Traffic, Storage and Purchase Division of the War Department. Quartermaster General Goethals, director of said division, appointed Mr. Cass Gilbert architect thereof, under whose direction and supervision the original conception was fostered and developed. The actual construction was carried on by the Turner Construction Co. under the Construction Division of the War Department, under the command of Brig.-Gen. R. C. Marshall, Jr. Lieut.-Col. H. S. Crocker was consulting quartermaster. The elevator installation was made by the Otis Elevator Co.

While designed and built primarily for Government service, a prominent warehouse and terminal operator who has been identified with the Brooklyn Amy Supply Base has recorded his belief that the solution of some of the most difficult problems confronting operators of commercial enterprises of this class lies in following the Government lead here inasmuch as he considers the Brooklyn Base is every way an ideal plant.

$500,000 Warehouse and Terminal for Mobile, Ala.

Mobile, Ala., October 20—[Special]—Mobile will get a unit of the Union Warehouse Corporation calling for a $500,000 warehouse and terminal for storage of cotton and other commodities, according to W. J. Leppart, representative of the corporaition. It is proposed to build 27 warehouse units in various cities and ports throughout the South and the issuance of standardized union warehouse receipts for stabilizing cotton values.

The Mobile warehouse will have an initial capacity of 40,000 bales and an ultimate capacity of 80,000 bales, according to Mr. Leppert. He said actual construction work will begin soon after the first of next year, and will be completed in time for the next cotton crop.

The Mobile Cotton Exchange has named a committee to work out details of the plan in so far as Mobile is concerned.

The warehouses are to be of standard design, of concrete-steel construction, fireproof throughout. Mr. Leppert said establishment of the plant at Mobile would mean that all cotton that naturally drains to Mobile would come this way and the cotton would be compressed right at the wharf, saving truckage charges.

"Not only will cotton be exported through Mobile, but all which arises in Moblie territory will be brought to Mobile to go coastwise instead of being handled by rail to South Atlantic ports and then sent coastwise," he continued. The water rate is much easier the East and England by an all-water route and at much less cost.

The Commercial Club of Claremore, Okla., now has more than 200 members. Newly elected officers for the ensuing year are, president, R. H. Wills; vice-president, Bourke H. Bayless; treasurer, L. T. Wilson.

To Utilize the 80,000,000 Acres of Wet and Overflowed Lands as a Means of Reducing the High Cost of Living.

By JOHN A. FOX.

The National Drainage Congress, an association of all interests throughout the nation directly or indirectly concerned in the drainage, reclamation and development of swamp and overflowed lands, will hold its next annual convention in St. Louis on November 11, 12 and 13. The congress does not advocate any particular scheme nor does it endorse any particular project, but it has worked continuously for the last seven years in an effort to awaken public sentiment throughout the country to an appreciation of the vast areas of wet and overflowed lands with a view to bringing about their reclamation and utilization at the earliest possible moment through State and Federal co-operation. A report published a few years ago by the Department of the Interior disclosed the fact that there were approximately 80,000,000 acres of these lands located in the various States, which could be readily and economically reclaimed by drainage or by levee protection. The list of these areas as published at that time showed the following:

	Acres.		Acres.
Alabama	1,120,000	New Jersey	601,900
Arkansas	5,760,000	New York	576,000
California	1,850,000	North Carolina	2,400,000
Connecticut	37,700	North Dakota	226,000
Delaware	200,000	Ohio	200,000
Florida	18,500,000	Oklahoma	35,000
Georgia	2,400,000	Oregon	500,000
Illinois	2,688,000	Pennsylvania	96,000
Indiana	1,000,000	Rhode Island	17,900
Iowa	800,000	South Carolina	1,760,000
Kansas	160,000	South Dakota	226,000
Kentucky	224,000	Tennessee	800,000
Louisiana	9,600,000	Texas	1,620,000
Maine	240,000	Vermont	70,000
Maryland	355,000	Virginia	384,000
Massachusetts	138,700	Washington	75,000
Michigan	4,400,000	West Virginia	2,500
Minnesota	4,500,000	Wisconsin	2,500,000
Mississippi	6,173,000	Wyoming	25,000
New Hampshire	43,000		
Nebraska	256,000	Total	74,471,700
Missouri	1,920,000		

It will be seen from the above that nearly all of the States are interested in this very important national matter, and while the larger areas of swamp and overflowed lands are to be found in the immediate Mississippi Valley and along the Atlantic and Gulf coast, there are nevertheless areas of sufficient size in most of the other States to justify their interest in the matter. Taken in the aggregate these 80,000,000 acres of land comprise an area of 125,000 square miles, or a greater area than the combined areas of the States of Iowa and Illinois, and as is well known to soil experts this land is perhaps the richest and most productive of any of our lands. Nearly every farmer is familiar with this character of land as "bottom land" and knows that his bottom lands are the richest and will produce more than any other lands on his farm. Every acre of this rich undrained region is bottom land and when reclaimed and put under cultivation it will produce from three to four times as much as the ordinary upland.

In their present swampy condition these undrained lands in the various States throughout the Union are a nuisance and a menace to the general health, while if reclaimed and utilized they would be extremely productive areas. For that reason every community adjacent to these wet and overflowed sections of the various States is participating in the activities of the National Drainage Congress with a view to having something done that will lead to their early drainage and reclamation.

It is only through a campaign of education that the people generally throughout the nation can be apprised of the economic value of this enormous undeveloped area and the present time, when we are bending every effort to increase our production and thereby to some extent reduce the high cost of living, seems most opportune to seriously consider the matter.

The very interesting feature about this rich unrecognized heritage of ours is that in most cases the large areas of swamp and overflowed lands are nearest to the center of population, for example, in the States of Missouri, Arkansas, Mississippi and Louisiana, one might say in the very heart of the country, there are approximately 20,000,000 acres of these lands that could be utilized. The land is so rich that when properly drained and placed in cultivation it will produce almost three times as much as the famous corn belt lands of Illinois and Iowa, which would mean that our supply of meat, wheat, corn, oats, cotton and sugarcane could be materially increased by the utilization of this valuable territory.

Much has already been done in the way of reclamation by drainage during the last 10 years due to the improved methods of excavation and the reduced cost at which work of this character can be done, because of improved machinery needed for cutting the canals and constructing the levees, and wonderful results have been obtained, particularly in the great St. Francis and Yazoo basins adjacent to the Mississippi River in Missouri, Arkansas and Mississippi, also along the coastal marshes in North and South Carolina below Norfolk. Enormous crops are now being produced on these reclaimed lands and yet only a few years ago they were cottonwood and juniper swamps.

One great advantage of nearly all of these wet-land areas is that they lie not only close to the center of population but are within easy reach of our markets, and, in most instances, are already provided with adequate transportation facilities. They could easily support a population of 100 people to the square mile at the most conservative estimate and when properly reclaimed and settled to this extent the development of these lands would afford room for a population of over twelve and one-half million. Their economic value to the nation can be readily seen when we take into consideration the present farm values in Illinois and Iowa, where land not nearly as rich is bringing from $200 to $300 per acre. Placing a nominal value of $10 per acre on these swamp lands when they shall have been reclaimed would show an economic value of over $8,000,000,000.

Unfortunately very little of this enormous swamp-land area is now owned by the National Government, although prior to 1851 these were mostly public lands but through acts passed in 1849, 1850 and 1851, and known as the swamp-land grant acts, most of these lands were transferred by the National Government to the several States in which they were located and have since been sold by the States and the funds derived from their sales used unwisely in many instances in an effort to effect drainage and flood protection. Most of the improvements that have been made thus far therefore have been done through private enterprise and without the assistance of State or Federal aid, although if some national legislation could be enacted whereby bonds could be authorized and underwritten by the National Government much greater progress would be made.

There will be quite a number of interesting questions discussed at the St. Louis Congress. Among them will be a consideration of the Smith-Chamberlain Bill and the Mondell Bill providing national legislation such as will materially hasten the work of reclamation now under way.

Members of the Cabinet, Governors of States, leading investment bankers and distinguished engineers from various parts of the country have been asked to address the congress, and some of the subjects which will be handled by them will be most instructive and most helpful in solving the question.

The farmers throughout the country are particularly interested in the outcome of the work of the National Drainage Congress because it means the opening up of millions or acres of new and extremely productive lands that will be available for settlement and development.

Brick Plant Establishes Spanish Class to Help Develop South American Trade.

From the A. P. Green Fire Brick Co. of Mexico, Mo., the MANUFACTURERS RECORD has received announcement of extensive plans which have been perfected by that organization for the development of their trade in South America. A class in Spanish has been started for their employes with a view to training salesmen who can go to Cuba, South America and other Spanish countries and compete on equal terms with the best trained and most skillful trade representatives from this or other countries.

Eighteen members of their office force have already enrolled for the preliminary training. After this is completed the company will offer the class a course in higher Spanish. It is intended to give all the employes such instruction as will enable both office men and salesmen to become thoroughly equipped to handle their export business, which the company states is steadily increasing.

Protecting Reservations to Save America in League of Nations Covenant

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 20.

The Senate refused to accept the Shantung amendment to the Peace Treaty, voting it down by a substantial majority, just as it has voted down every other direct amendment on which it has had a chance to vote.

The result was hailed by the Administration as a great victory. It had the appearance of a cannon ball, but it was hollow inside. It was known weeks ago, and foreshadowed in this correspondence, that no direct amendment would be accepted. Senators knew well enough that they had been trapped. They realized that they would have to accept this particular Trojan Horse as it came to them, but, just as certainly, they knew of the evils which were pent up in its bowels. They long ago decided, therefore, to take the animal, but to put the hobbles on where they ought to be.

If the country is saved, it does not make much difference whether the method of preservation is by amendment or by reservation, and the method of reservations happens to be the more acceptable one.

With the assurance that the Johnson amendment also will be voted down, the Lodge group in the Senate is now engaged in drafting the resolution of ratification, with reservations in it. These reservations, as proposed by the Foreign Relations Committee, will contain all of the principles which were contended for in the direct amendments originally suggested.

It is the belief of members of the committee that enough votes are already pledged to assure the adoption of each and every one of these reservations, 49 votes being counted for the one of them having the weakest following.

To illustrate, although 55 Senators voted against the Shantung amendment, at least a dozen did so for technical reasons and not because they favored the Shantung provisions of the treaty. There will be a majority of Senators to vote on a reservation to the effect that the Shantung matter does not meet with the approval of the American people.

It is not by any means assured, however, that all of the reservations to be suggested by the committee will go through, in spite of the majority pledged, it is claimed, in each case. The four major amendments, as proposed last summer by Mr. Elihu Root, are sure to be in the ratification resolution as finally passed, but some of the others, it is felt, may be dropped out before a final vote, particularly if there is some intimation from the White House of an intention to accept the Root reservations.

The Senate is somewhat aroused over the discovery that the treaty seems, by implication, to recognize "traffic in women," and the impression is spreading that there is more danger in the Labor Addenda than has ever been suspected, but the very vastness of the subjects treated in the instrument has prevented the exhaustive discussion which might otherwise have been considered proper, and explanations from the White House or the Department of State, should either decide that the Senate is entitled to information, might, it is thought, lead to some revision of the Senate's attitude.

The enormous pressure being brought to bear for prompt action has had its effect, and the Lodge group is correct in asserting that if there is any further delay it will be due to the tactics of the League advocates in making dilatory moves to prevent a vote. It has been agreed by the leaders on both sides to have the treaty out of the way by the middle of November at the latest. Senator Penrose still insists that the fight will be over and he treaty ratified by November 1.

With the fact that the number of votes of the British Empire in the League Assembly had been increased from six to seven by the action of London in securing control of Persia since the armistice was signed, and publication of the very frank statement of the Canadian Premier that the British Empire, through its votes, represented a League within the League, the Johnson amendment has been gaining weight and friends. Since the amendment itself will be defeated, a reservation to cover the point will be inserted in the ratification resolution, providing that in cases where one part of the British Empire is involved neither it nor other parts of the empire shall have a vote, and protecting the United States in controversies with parts of the British Empire along the same lines.

There is some doubt as to whether the treaty, after ratification by and with reservations, will have to be submitted to the several nations involved for their approval. Certainly there would be no reason for such a submission to Germany, where the reservations involve only the League of Nations, of which Germany is not a member. The best opinion is that it would be wise to have the other principal nations acquiesce by direct act in the American reservations. It is not felt that any of the nations would hesitate to do so, provided their acquiescence were urged by the President.

But Senators are frankly solicitous of what the President will do. They fear that in his present nervous condition and irritability, he may resent the inclusion of reservations and decide simply to pigeonhole the treaty, thus leaving the nation suspended in midair. And they fear, too, for the carrying out of the treaty by a sick man. But no Republican will talk of these things, as it is not considered good taste, and it has been agreed that if there is any move in Congress for the taking over of the Presidential functions by the Vice-President, it must originate with the Democrats.

Unquestionably the President would be entirely within his Constitutional rights if he declined to have anything more to do with the treaty after changes by the Senate. He could simply withdraw it, as has been done by other Presidents in other similar cases. And it is the threat of this that is constantly being brought up in Congress in one form or another, but always camouflaged.

All summer the French have been insisting on prompt action by America, and undoubtedly this pressure from France, as well as from England, had a great deal to do with the President's decision to take the Western trip that finally sapped his strength.

Another thing Senators are worried about is the obscure provision for mandatories. General Harbord and staff have just returned to Paris after an extended trip through Asia Minor, and members of the staff, while stating privately that they do not favor the United States undertaking to rule the counry in question, nevertheless are under the impression that Washington is under some obligation or promise in the matter. It is proposed to cure this situation by including among the reservations a provision that no mandate shall be accepted by the United States without the consent of Congress.

Congress has become somewhat tired also of men such as Colonel House and Barney Baruch, without official standing, acting as the powers behind the throne. Senators fear that the President might appoint somebody to represent the United States on the Supreme Council without asking either the advice or consent of anybody. For that reason, in the ratification resolution there will be included a provision that the American representatives, all of them, both on the Supreme Council and on any of the numerous special commissions in which the nation may have a share, shall be subject to confirmation by the Senate. The point would seem to be already governed by the Constitution of the United States, but Presidents have often decided otherwise, and Mr. Wilson, in fact, appointed the peace delegation without consulting the Senate at all.

The fact is that a great many Senators took seriously the war slogan about making the world safe for democracy. They understood, of course, that it was just a phrase, as to the meaning of which a whole library could be written, but they also understood that it told a great and elementary truth. They were somewhat amazed, therefore, when the League Covenant undertook to establish what the Romans, in the decadent days, denominated a Triumvirate, meaning a rule of three men, the covenant providing for nine and establishing the most complete oligarchy and the most powerful ever before suggested on earth, much less seriously considered. When they looked through the instrument to find how the power of the people was to be exerted, they discovered that the power of the people was not recognized at all. True, there were statements about the rights of peoples, but from every people was taken away, substantially, the right to make war, the right to

make peace and the right to do almost anything that a sovereign people usually does.

When, therefore, Senators talk about Americanizing the treaty, they mean reading into it somehow or other those institutions and methods which give to the people supreme power in America. They want this nine-man oligarchy to have a string tied to it, and they want that string to have the other end in Washington. They know, for one thing, as has been previously pointed out, that if some tribunal in Geneva sent orders to America to send a million soldiers to Afghanistan the American people would never let them be sent unless they approved of the mission, treaty or no treaty. The Senators, therefore, do not wish to sign a contract that the nation will not carry out.

Information continues to pour into Washington indicating a rising tide against the treaty. Hiram Johnson literally had ovations wherever he went. Were the world, therefore, not in an orgy of insanity, the Senate would probably refuse to act on the treaty at all until after next November, making it the supreme issue in the Presidential campaign. Some Senators have favored that course right along. But in spite of these assurances that a national referendum would kill the treaty, the Senate, for the general good, is going ahead with ratification, softening the most objectionable features of the covenant and taking the most feasible means of protecting the nation's honor, safety and institutions.

There has been a rumor going around, though nobody seems to know where it came from, to the effect that the Supreme Court will be asked to declare the ntire covenant arrangement null and void on the ground that neither the President nor the Senate, nor both together, have the authority by treaty to change the form of government, or to transfer to a new body the powers specifically delegated to themselves by the several States. The contention is that the covenant is not a treaty, properly speaking, but a proposal to change the constitution, and that it can be legally ratified only by submitting it in the form of a constitutional amendment, to be approved by three-fourths of the States before becoming binding.

A Hardwood Lumber Producer Opposes Higher Prices for Lumber.

W. M. Ritter, president of the W. M. Ritter Lumber Co. of Columbus, Ohio, has written an open letter to the hardwood manufacturers and their patrons regarding the prices of forest products and their relative increase compared with other materials.

"Statistics gathered by the Government and used by the Industrial Board of the Department of Commerce," states Mr. Ritter, "show that the increase during the war in the market price of forest products over pre-war prices was less than the increase in the price of any other of the basic commodities."

An interesting comparison of the increase in prices during the war period showed that while pig-iron increased 138 per cent; structural steel, 115 per cent; common brick, 105 per cent; builders' hardware, 189 per cent; sand and gravel, 103 per cent; building stone and hollow tile, 100 per cent each; and building material other than lumber up to 165 per cent, the average increase of hardwood lumber, was only 47 per cent, and the average increase of all hardwoods up to the present time, over the pre-war period, is only 72 per cent.

It is pointed out by Mr. Ritter that "at the same time it should be borne in mind that the increase in the cost of producing hardwood lumber during the period was approximately as great as the increase in the cost of producing other structural materials."

Commenting on the fact that the industry has been accused by the uninformed of "profiteering," Mr. Ritter writes: "I am confident it can readily and effectively be shown that there has been no hoarding of hardwood by the producer and that everything that could be sold and shipped has been sold and shipped; that there is no agreement, combination or concerted action of any kind among the hardwood manufacturers for the purpose of restricting production or securing higher prices.

"As a matter of fact, the market for the high grades of hardwood lumber has for the past few months advanced considerably. A few grades have changed almost from day to day and always upward, but this has been due entirely to the fact of the inadequate supply of these higher grades of material and hysterical efforts of consumers to cover their necessities.

"The scarcity of high grades and accumulation of low grades is easily explained. During the war the consumption of lumber for other than war purposes was almost nothing; the demand for high grade lumber for war purposes was abnormal. In the manufacture of lumber from trees, not more than 50 per cent of the product, at the very outside, is high grade lumber. The result of the abnormal demand for this was that the producers, when the armistice was signed, had an accumulation of low grade lumber in their yards and a shortage of the higher grades. When the construction of buildings, the operation of factories producing furniture, etc., calling for high grades of lumber, was resumed (which came much sooner after the armistice than anyone expected), consumers found a wholly inadequate supply of these grades; this acute shortage resulted in exactly what could be expected—a rapid increase in price—and the mills have not been able as yet to catch up with the demand. This is a most unsatisfactory condition for the producer as well as the consumer; for the consumer because of the high prices he has to pay, and for the producer because he knows that lack of uniformity tends to create an unstable condition in the market. He knows it is affecting only a portion of his product. He knows that it is spasmodic and unreal, and further and more important than anything else, he knows that if it lasts it will have two most disastrous effects:

"(1) The introduction of other materials to supplant his commodity, and

"(2) To retard construction and thereby tend to destroy the demand for his product.

"If it were possible within the law, the very best thing that could happen for both the public and the industry would be for the manufacturers to get together and agree upon prices which would be fair and just to the public and to the producers. This policy, if it could be pursued by all industries, would do more than anything else to hasten the return to normal industrial conditions and aid the Government in its campaign to reduce the high cost of living.

"While in any aspect of comparison of prices received for its commodities, the lumber industry is in an unfavorable situation compared with other basic industries, and while a short-sighted, selfish policy might urge the wisdom of getting the highest prices obtainable, yet I am firmly convinced that such a policy is not the wisest for the general good or for the best interests of the industry. I am confident that fair prices and a stable market are of the highest desirability.

"I am strongly of the opinion that the average price of hardwood products is as high at present as it should be permitted to go. No conditions of cost of material or labor should be permitted to come about making it necessary to be higher; and I trust that all other hardwood producers will hold similar views, and that by preventing any further advances in the price of this commodity, which has had the least advance of any of the basic commodities, a valuable example will be set for producers in other fields."

Heavy Sales of Mississippi Lands at Big Prices.

Memphis, Tenn., October 17—[Special.]—One of the biggest tracts of land in one body sold in Mississippi this year is a 9000-acre tract in Grenada county, Mississippi, which has just been bought for $425,000 by the Churchill-Melton Company, lumber dealers of Greenwood, Miss., and Louisville, Ky. Most of the tract is in the rich Delta section of Western Mississippi. The city of Leflore is located on it. The sale was made by Capt. A. V. Brower of the United States Army Quartermaster Corps, who represented heirs of the Brower family.

The big plantation property originally cost $22,000 when the Browers bought it 18 years ago. Eight hundred acres are in cultivation and about 5000 in virgin timber, 60 per cent gum, 25 per cent oak and the balance other varieties of hardwood. It is estimated the tract contains 35,000,000 feet of timber. The new owners will move this but 12 miles to their mill at Greenwood, and plan to put the cut-over land on the market as agricultural land in the future. It is much the same kind of soil as that of many of the finest Delta farms in Western Mississippi—farms that had a value of $50 to $100 an acre a few years ago, but which now are $200 and $300 an acre.

C. F. Baltzer and S. L. Dodds have sold a Sunflower county, Mississippi, plantation to Mrs. Hal Parchman for $300 an acre. Mr. Dodds recently sold the main Baltzer plantation of 2558 acres for $510,000 to Jacob Fink, and Mr. Fink has already been offered $100,000 more than he paid for the place. Much of it will yield $200 gross in cotton this season.

The First Prayer in Congress

Rev. Victor I. Masters, D.D., Superintendent of Publicity, Home Mission Board, Atlanta, Ga.

[In view of the discussion which has been very general of late as to the request by Benjamin Franklin for prayers in the Continental Congress, the following statement will prove of special interest.—Editor Manufacturers Record.]

Through the courtesy of ex-Governor John C. Sheppard of South Carolina to his old schoolmate, Dr. Donaldson of Atlanta, and that of Dr. Donaldson to me, I was able to secure a photograph of a historic painting which shows the first Continental Congress of the United States in prayer.

Besides other publications of the picture, I passed it on to Dr. Lee R. Scarborough, director of the 75-Million Baptist Campaign, under whose influence it was published in practically every one of the Baptist papers in the South, and there made an impressive exhibit, both from the standpoint of patriotism and religion.

Following this publication Dr. S. M. Brown, editor of The Word and Way, Kansas City, received a letter from Mr. Clarence A. Cannon, parliamentarian of the House of Representatives at Washington, in which Mr. Cannon says that there was no prayer, inasmuch as the motion for prayer made by Franklin in the Federal Convention in 1787 "was defeated by adjournment and the prayer was not offered."

I sent the letter of Mr. Cannon to Governor Sheppard and asked for his comment. The comment of the Governor, which I have since found verified in every point in the historical records of that period, disposes of the question.

The whole trouble seems to have arisen out of Mr. Cannon referring to the Congress of the United States in 1787, whereas the picture was that of the Continental Congress of the United States held at Philadelphia in 1774.

When Governor Sheppard secured the picture the custodian of Independence Hall handed him the document descriptive of the incident to which the picture refers. This document I have since found in the Pictorial Field Book of the Revolution, Vol. 2, pages 61-62.

John Adams, one of the Massachusetts delegates, wrote of the first prayer to his wife on September 8, 1774, describing the occurrence when the prayer was offered in Congress on September 7. He wrote as follows:

"When the Congress met, Mr. Cushing made a motion that it should be opened with prayer. It was opposed by Mr. Jay of New York, and Mr. Rutledge of South Carolina, because we were so divided in religious sentiment—some Episcopalians, some Quakers, some Ana-baptists, some Presbyterians, and some Congregationalists—that we could not join in the same act of worship. Mr. Samuel Adams arose and said that he was no bigot, and could hear a prayer from any gentleman of piety and virtue, who was at the same time a friend to his country. He was a stranger in Philadelphia, but had heard that Mr. Douche deserved that character, and, therefore, he moved that Mr. Douche, an Episcopalian clergyman, might be desired to read prayers to Congress tomorrow morning. The motion was seconded and passed in the affirmative. Mr. Randolph, our president, waited on Mr. Douche and received for answer, that if his health would permit, he certainly would. Accordingly, next morning he appeared, with his clerk, and in his pontificals, read several prayers in the established form, and then read the Psalter for the seventh day of September, which was the 35th psalm."

Mr. Adams declared in the letter that the prayer of the minister "filled the bosom of every man present. I must confess I never heard a better prayer."

There is no doubt whatever as to the facts about that prayer. On page 315, Vol. 2, Harper's Encyclopedia of United States History, it is set forth again in the following words: "It was voted that the sessions of Congress should be opened every morning with prayer." There is, however, some doubt as to the degree of reverence shown by some of the honorable delegates. The book from which the first quotation above is made sets down the statement of a Rev. Mr. White, who declared nobody bowed during that first prayer except Washington. On the other hand, Governor Sheppard cites the following passage from another history, which I have not before me:

"Washington was kneeling there, and Henry, and Randolph, and Rutledge, and Lee, and Jay, and by their sides there stood, bowed in reverence, the puritan patriots of New England, who at that moment had reason to believe that an armed soldiery was wasting their humble households. It was believed that Boston had been bombarded and destroyed," etc.

The encyclopedia referred to above even gives the prayer that the minister offered that day. Its historical significance and brevity justify its quotation in full:

"O Lord, our Heavenly Father, high and mighty King of kings and Lord of lords, who doth from thy throne behold all the dwellers of the earth, and reigneth with power supreme and uncontrollable over kingdoms, empires and governments, look down in mercy, we beseech thee, on these American States, who have fled to thee from the rod of the oppressor, and thrown themselves on thy gracious protection.

"Desiring to be henceforth dependent only on thee, to thee have they appealed for the righteousness of their cause. To thee do they look up for that countenance and support which thou alone canst give. Take them, therefore, Heavenly Father, under thy nurturing care, give them wisdom in counsel and valor in the field. Defeat the malicious designs of our adversaries. Convince them of the unrighteousness of their cause. And, if they will persist in their sanguinary purpose, Oh! let the voice of thy unerring justice sounding in their hearts, constrain them to drop the weapons of war in their unnerved hands in the day of battle.

"Be thou present, O God of wisdom! and direct the counsels of this honorable assembly. Enable them to settle things on the best and surest foundation, that the scenes of blood may be speedily closed, that order, harmony and peace may be restored, and truth and justice, religion and piety, may prevail and flourish among the people.

"Preserve the health of their bodies and the vigor of their minds. Shower down upon them and the million they represent such temporal blessings as thou seest expedient for them in this world, and crown them with everlasting glory in the world to come. All of this we ask in the name and through the merits of Jesus Christ, thy Son, our Saviour. Amen!"

In these days really patriotic Americans are thinking with seriousness upon the relation of religion to the foundations of the American Republic. Well they may. With an optimism which was thoughtless and fatuous, we have allowed all sorts and sizes from the ignorant and misdirected masses of Europe to flock to this country, until, in these latter days, there is no form of unbelief too irreverent and blasphemous to find advocates, especially among the ignorant newcomers. Carelessly we allowed moral and political Bolshevists to come in droves in our too-open national gates to poison the streams of the country's life which were made pure by the labor and blood of patriots.

Mr. Cannon's statement that the motion of Franklin for prayer in the Constitutional Convention in 1787, was "defeated by adjournment," is an inadequate statement of what occurred. Franklin made an eloquent appeal and motion for prayer, after the delegates had been unable for weeks to agree. But they had bound themselves to hold all sessions secret. Concerning Franklin's motion the point was made that to let in a minister now to pray would suggest division to the public and do harm. From such considerations they failed to vote on it.

Their adjournment without vote slants toward a feeling of reverence rather than the contrary, especially when taken in connection with Franklin's dynamic address in which he compared their sense of need of God at Philadelphia in the Continental Congress, where the fear of being defeated by the British was on them, to their complacent sense of sufficiency now no enemy threatened to destroy their homes.

Who can read the story now and not be humbled at the thought of how our President called America to prayer when we sent our boys against the bloodthirsty hordes of imbruted Germany, with our failure publicly to give thanks to God when the victory was won, and the apparent assurance of the Peace Conference at Paris that it did not need to call on God for wisdom—it was too busy—there was not time!

Nor are we to forget that it became the fixed policy of the

Congress of the United States proper to have daily prayers in both branches of Congress, which practice is still now observed.

Christian Americans who have learned from the history of their own land that "righteousness exalteth a nation," have been grievously embarrassed by the declination of the Peace Conference in Paris to have prayers, on the ground, forsooth, that there was not time. Such is the ground which it is declared Premier Clemenceau gave for not having prayer. The Premier seems to be a great statesman, but a hard-headed old atheist.

Without here taking sides on the desirability of the League of Nations, I cannot but confess I would have greater confidence in the wisdom of those negotiations and the document they have fixed to run the world by, if there had been in it more of that humble recognition of dependence upon God which characterized our American forefathers when they promptly determined in their first gathering in the Continental Congress at Philadelphia to call daily upon God for wisdom and guidance.

Why Some Strikes Invite Failure—The un-Americanism of Union Labor Under Radical Control.

[Conway (Ark.) Times.]

That men are born free and equal, is declared by the Constitution of the United States.

That organized labor in numerous instances has not recognized this inalienable right of the working classes, is of record.

The present steel workers' strike is an example of unfairness. That's why it invites failure and will fail.

The Conway Times concedes the right of workingmen to organize and maintain unions.

But we controvert its attempt to compel every workingman to either join a union or lose his employment—in other words, to compel employers to maintain a "closed shop."

Every workingman should be free to either join the union or remain out of it, and every employer should have the right to employ whomsoever he sees fit and to pay them the ruling scale of wages.

A union should have the right to invite workingmen to join the organization, but there should be provided a drastic penalty whenever it is shown that the union attempts to browbeat and force workingmen to become members.

Suppose fraternal organizations should adopt a compulsory membership plan. It would mean the instant death of the organization attempting so un-American a proposition.

But all-powerful labor organizations have declared to workingmen that they are not born free and equal, and that they must join with elements undesirable, or be driven from the opportunity to earn a living for themselves, their wives and children.

The monarchial plan of forcing men into labor unions has been tolerated in the United States for so many years that it has become a greater power than even the Constitution of the United States or the Federal Government.

Union leaders have defied the courts, Congress, and State Legislatures, until today the concentration of this labor power has largely caused the present unrest that is keeping this nation and Europe in a constant turmoil.

If the Constitution of the United States means anything, it means that workingmen are born free and equal, especially if they are 100 per cent American.

But do 100 per cent Americans precipitate strikes in their own country? No. It is well established that the most serious troubles have been brought about largely through foreign elements, conflicting with purely American, and by those not understanding or being in full sympathy with American laws and democratic government.

Even in this steel workers' strike, it has been disclosed that for some years before the strike was called there had been conducted a campaign of propaganda that suggested Bolshevism in the control and management of our leading industries.

And the strike order forced thousands of workingmen, not sympathizing with the strike plan, but to protect their lives, to join the strikers.

This is a clear violation of the Constitution of the United States, as well as of local and State laws.

Intimidation was the weapon employed to rob men of their American citizenship, and that several hundred of these men, recently receiving $10 per day, should desert and accept work as section hands on railroads at 40 cents an hour, is incontrovertible evidence that they are the victims of unlawful coercion.

Now the time has come for American principles to ride paramount in the handling of labor problems. Give labor organizations everything that they are entitled to, but do not permit them to longer rob citizens of their inalienable right.

Let's consider the recent negro uprising in Phillips county, this State. Its origin was in vicious propaganda put out by men who defied constituted authority. Without passing on the rights of the negro crop-sharers, they permitted themselves to be used unlawfully to collect their earnings. It was a use of a weapon not recognized by the Constitution of either the nation or of Arkansas, but parallel with the plan of labor organizations to compel workingmen to join unions or force them out of their jobs or call a strike.

When it is possible for a foreman and a half dozen union workers to precipitate a strike, and then influence thousands of employes in other industries to "walk out" in sympathy, unionism is a bad thing.

Whenever organized labor adopts a scale of wages based on efficiency, unionism will always be just and fair. At present a second and third-class workman can join a union and share in the benefits just as do the high-class workmen. By this means inefficient workmen use the union to compel employers to pay them wages that they cannot earn. If working cards were issued according to efficiency, many men now drawing from $5 to $10 per day would be receiving from $2 to $3 a day. And there would be fewer strikes.

An Open Door to International Meddling.

LEWIS H. NASH, President Nash Engineering Co., South Norwalk, Conn.

I am very glad to note that there are some matters we should look at from a national point of view, absolutely removed from partisanship or sectionalism. One of these questions is whether we are to have a government by factions of the people or by the whole people. I believe that we will readily settle these questions in America. Socialism and anarchy are not likely to prevail here, but the whole world is seething with these questions, and it is for this reason that I believe that every man who loves his country, whether Democrat or Republican, should insist that we do not adopt a Constitution of the League of Nations, in which a governing body, whose constituents are foreign to American ideas, would have the right to dictate to us in matters regarding American policies.

Our right to veto by a single vote is a very flimsy defense for American liberty. If we once admit their right to discuss our affairs, we have opened the door to international meddling with our affairs, and such a state of things can only mean trouble.

Activities in Monroe, La., and Vicinity.

T. E. FLOURNOY, President The Ouachita National Bank of Monroe, Monroe, La.

We have a great many residences, both large and small, under construction in West Monroe and Monroe, and several very large buildings are contemplated.

The Ouachita National Bank will very shortly begin the erection of a banking house.

The City of Monroe is contemplating the erection of several school buildings at an aggregate cost of from $200,000 to $300,000. A proposed bond issue of about $1,500,000 will be submitted to the voters soon to provide for general improvements, consisting of street paving, water-works and filtration plant, sewerage system and quite a number of other items.

The Parish of Ouachita is just now completing a system of good roads in the eastern half of the parish at a total outlay of $500,000, and is contemplating the submission of other bond issues to cover something like $1,000,000 of new road construction in other parts of the parish.

The Methodist congregation of West Monroe will very shortly begin the construction of a new church to cost from $40,000 to $50,000. A new compress is now nearing completion in West Monroe at a cost of $100,000. A new hotel is contemplated for the City of Monroe at a cost of $500,000.

Shipping Cotton to Germany.

During September the exports of cotton to Germany were 27,200 bales, making a total for August and September of 48,947 bales, showing that we are doing business with Germany even though the peace treaty has not been signed. We also shipped 9817 bales to Austria during September. During that month Belgium took 22,731 bales; the Netherlands, most of which was probably for Germany, 45,700 bales.

Road Building Activity in Arkansas.

Little Rock, Ark., October 17.—There has never before been such an era of improved highway construction in Arkansas as exists today. It has been estimated that the regular 60-day session and the extraordinary 10-day session of the Arkansas Legislature passed acts providing for the construction of more than 8500 miles of hard-surface road, the cost of which will run into millions.

The extra session was called by Governor Brough specifically for the purpose of passing good-roads legislation. While many of the acts were curative or remedial of laws previously passed creating improvement districts, at least 1500 miles of roads in new districts were created.

Test suits to determine the validity of the acts will be brought the principal ground of attack being that the notice required by the constitution for the introduction of a bill for a local act was not given.

There is some opposition by eminent legal authorities to the highways program on the ground that it is creating a tremendous debt that will throw the State into virtual bankruptcy, but this position is not accepted by others.

State Highway Commissioner W. B. Owen gives as his opinon that there must necessarily be a delay in such a tremendous program and that it will require several years to complete the 8500 miles of roads at present contemplated. He says further:

"It is estimated that it requires 150 men 14 days to construct one mile of the average road. At the same ratio 150 men would construct 16 miles of road within a period of 8½ months, which allowing for bad weather and other unforseen contingencies, constitutes the full amount of time that may be given to road work during the building period of any one year.

"We have at this time about 2500 miles of road under contract. This means that we have 23,400 men employed to construct 2500 miles of road within a year, and at the same ratio it will take 79,560 men one year to complete the system of 8500 miles.

"Have we enough labor in the State to supply the demand, is the question confronting us. My opinion is we have not, and we must expect a delay in the completion of our system of three to four years on that account, all of which, coupled with other delays with which we are forced to contend, compel the conclusion that if we complete the system within five or six years we will accomplish all that could be expected to us."

Sale of Surplus Machine Tools to Belgium.

The War Department has entered into a contract with La Construction Metallique, a co-operative society composed of the heads of approximately 500 industrial organizations of Belgium, for the sale of a quantity of surplus machine tools held by the War Department.

The Belgian Government has arranged, through American banking interests, for a credit of $50,000,000 in the United States, and La Construction Metallique has been authorized by the Belgian Government to make purchases of machine tools against this credit to the extent of 25,000,000 francs. To date La Construction Metallique has purchased from the War Department approximately 2500 machine tools. These are being put in transit to Belgium as rapidly as they can be prepared for shipment.

Oklahoma Minerals to Be Developed.

Oklahoma mineral properties, especially lead and zinc deposits, will be developed by the Victory Metals Co. of Miami, Okla. This corporation has been chartered with $5,000,000 capital stock, and its officers are: President, Sam Davidson; vice-president, W. M. Babcock; secretary, James Harrison; each of Fort Worth, Tex.; treasurer and general manager, Walter H. Logan, Miami.

Why Clarifying Reservations in Treaty of Peace and League of Nations Legally Necessary.

By Judge Charles E. Chidsey, Pascagoula, Miss.

The newspapers that are supporting the Administration program of the Treaty of Peace and the League of Nations are making much over the interpretation given disputed clauses by the President, saying in effect: "Here, now, is what this Treaty means and a clear interpretation of its ambiguities; there is nothing more to do but to accept the President's interpretations and ratify the League and the Treaty without any reservation or amendments even though they make its language more specific."

Are these papers forgetful of the fact that the interpretation of the President of a clause in a treaty will not be binding upon his successors in office, nor upon the other signatories of the treaty nor upon the courts when it shall come before them for judicial interpretation? A treaty is only a contract between two or more nations and the courts so hold it. "In the construction of treaties, the same rules which govern other compacts properly apply." 9 How. (U. S.) 127; 13 Law ed. 74.

If the stipulations are to be understood, its language and apparent intention manifested in the instrument with reference to the contracting parties, the subject matter, and the persons upon whom it is to operate. The Supreme Court when authorized to adjudicate on the rights embraced in a treaty, will do so judicially, and give its judicial meaning and interpretation as a contract on the principles of justice and rules of equity. The United States vs. De La Maza Atredondo, 6 Pet. 691: 8 Law ed. 547.

The entire instrument must be examined in order that the real intentions of the governments, which must control, may be ascertained. United States vs. Texas, 162 U. S. 1: 40: Law ed. 867.

"A treaty should be so interpreted as to give effect to the object designed and for that purpose all of its provisions must be examined in the light of attending and surrounding circumstances. Ross vs. McIntyre, 140 U. S. 453: 35 Law ed. 581."

"A convention in a treaty which is operative upon both of the signatory powers, and is intended for their mutual protection, should be interpreted in a spirit of uberrima fides, and in a manner to carry out its manifest purpose. Tucker vs. Alexandroff, 183 U. S. 424: 46 Law ed. 264."

"A treaty constitutes part of the supreme law of the land, and should receive a fair and liberal interpretation according to the intention of the contracting parties. Chew Hoong vs. The United States, 112 U. S. 536: 28 Law ed. 770."

"Treaties should be liberally construed so as to carry out the apparent intention of the parties to secure equality and reciprocity between them. De Geoffrey vs. Riggs, 132 U. S. 258: 33 Law ed. 642."

"Where the treaty admits of two constructions, one restrictive as to the rights that may be claimed under it, and the other liberal, the latter is to be preferred. Hauenstein vs. Lynham, 100 U. S. 483: 25 Law. ed. 628."

"There is no rule of interpretation applicable to treaties, or to private contracts, which would authorize the court to make exceptions by construction, where the parties have not thought proper to make them. Society for the Propogation of the Gospel vs. New Haven, 8 Wheat, 464: 5 Law ed. 662."

"The meaning of the treaty of peace with Spain by which the Philippine Islands were ceded to the United States cannot be controlled by a Senate resolution, adopted, after the ratification of the treaty, by a vote less than two-thirds of a quorum, that it was not intended to incorporate the inhabitants of the Philippines into the citizenship of the United States, or to permanently annex those islands. Fourteen Diamond Rings vs. United States, 183 U. S. 176: 46 Law ed. 138."

"A treaty is in its nature a contract between two nations—not a legislative act. Foster vs. Neilson, 2 Pet. 253: 7 Law ed. 415."

"A treaty is a compact between independent nations, and depends for its enforcement on the honor and the interest of the parties to it. Edye vs. Robertson, 112 U. S. 580: 28 Law ed. 798."

The foregoing quotations from decisions made by the United States Supreme Court, established beyond the peradventure of a doubt, that the Treaty of Peace now before the Senate is only a contract between the United States and other signatories, and a contract which the courts of the United States, England, France

and Italy have the right to interpret whenever it comes before them for adjudication, and whenever it is necessary to interpret it they will be guided solely by the language of the instrument itself, and not by the speeches of President Wilson, Lloyd George, Clemenceau or anyone else. They will look first to the language of the treaty and if its meaning cannot be found then they will refer to the minutes of the proceedings before the Peace Conference for light to aid them in their construction of the treaty. These decisions also clearly indicate that the interpretation given to the treaty by President Wilson, or members of the United States Senate, or the Premiers of France, England, Belgium, Italy and Germany and Austria cannot be and will not be binding upon their successors in office nor upon the courts of their respective countries, and this fact emphasizes the necessity of the United States safeguarding its rights by attaching to the treaty such reservations or amendments that shall specifically express the purpose of the United States and not leave them open to a possible misunderstanding. Why should there be anything in the treaty or the League of Nations that "is understood"? Why not express it?

Not only this, but the United States Senate has a right to fix the date when the treaty shall go into effect. The date when a treaty is to go into effect is to be fixed, not by its provisions that it is to become operative 10 days after exchange of ratifications, but by an Act of Congress, where the Senate has added an amendment to the treaty, declaring that it shall not take effect until approved by Congress. United States vs. American Sugar Refining Co., 202 U. S. 563: 50 Law ed. 1149. Making the ratication of the treaty relate back to signing, thereby devesting a title already vested, cannot be sanctioned. Jacker vs. Magee, 9 Wall 32: 19 Law ed. 571.

These citations give a hint of the various questions that may be raised and which will call for a judicial interpretation of a treaty. Why, even a "great editor" may find himself involved in a controversy that will call for a decision of the United States Supreme Court as to the true meaning of a clause in the treaty and of his individual rights, and that decision may knock a hole in the treaty big enough to drive a yoke of oxen through. I have already in a previous issue of the MANUFACTURERS RECORD pointed out that ex-Senator A. J. Beveridge in an unanswerable argument has shown that Articles X and XVI of the League of Nations are in direct conflict with the Constitution of the United States, and in this we agree, and the foregoing pages show that it is within the range of human probabilities that this question will come before the United States Supreme Court for adjudication. Should the court sustain the position of ex-Senator Beveridge, what becomes of your League of Nations? The answer is to be found in the opinion of Mr. Justice Swayne, in Cherokee Tobacco Co. vs. The United States (11 Wall. 616: 20 Law ed. 227), where he says: "The second section of the fourth article of the Constitution of the United States declares 'that this Constitution and the laws of the United States which shall be made in pursuance thereof, and all treaties which shall be made under the authority of the United States, shall be the supreme law of the land.'

"It need hardly be said that a treaty cannot change the Constitution or be held valid if it be in violation of that instrument. This results from the nature and fundamental principles of our Government. The effect of a treaty and acts of Congress, when in conflict, is not settled by the Constitution. But the question is not involved in any doubt as to its proper solution."

President Wilson and his friends claim that Articles X and XVI do not conflict with the Constitution, and by implication if not by express words, they wish it to be understood that the interpretation of the President is final. I have shown above that his interpretation is not final; it is not binding upon either the political or the judicial branches of this Government, for his successors have a right to set aside his interpretations, and when it comes to the court they must look to the words of the instrument itself, and interpretate as they would any other contract; the ordinary words according to their ordinary acceptation, and technical words according to their recognized technical meanings. And the French and German and Italian Court will follow the same rule."

Where a treaty is made in two languages, and each version is declared at its head "original," the one version neither controls no is to be preferred to the other; each expresses the meaning of the contracting parties, respectively, in their own language, as, in the opinion of each, expressing and declaring the intention of both. United States vs. Arredondo, 6 Peters, 691: 8 Law ed. 547.

The courts of Italy, Germany, Great Britain and France are under no legal or moral obligations to accept the interpretations of a treaty made by an American court, though they may regard them with profound respect, and the same rule applies to the political departments of the various signatories. They have a right to reject the American interpretation of the treaty and of the League of Nations as unsatisfactory, and these difficulties are more likely to occur, when they, as they have a right to do, take the treaty or League of Nations as written in their own languages as the basis of their interpretations.

Article I of the League of Nations provides that any signatory may withdraw from the League on giving two years' notice of its intention to withdraw, and then attaches a string to it by saying, "The council by unanimous vote decides that the nation's league obligations have been fulfilled." This reminds me that during the War of 1812 a patriotic citizen of Maryland raised a volunteer company to go to the front. On the day that his company was to start out, he had his men drawn up in a line and then made them a speech in which he said:

"Men, we are going to war, and you know that means kill and be killed. Now I don't want any man to take the chances of being killed unless he is willing to take that chance. If there is any man in this company that has changed his mind and wants to stay at home, why he can do so. All he has to do is to step out of the ranks over that line, but," he added grimly, "I am going to shoot the first ——— that steps out."

The League of Nations as Viewed by an Attorney.

RICHARD P. EVANS, Counsellor at Law, Washington, D. C.

After reading a copy of the MANUFACTURERS RECORD I take pleasure in forwarding herewith my check for $6.50 in payment of a year's subscription, which please start from September 1, so I can have back numbers containing articles relating to the proposed "League of Nations."

Permit me to congratulate you upon your attitude toward "Pandora's Box" of diplomacy.

In my opinion, the proposed covenant would prove a "Trojan Horse" in its effect upon the independence and welfare of our country, and I am anxious for its complete elimination from the treaty of peace.

The League covenant would place the United States in the position of an independent and wealthy merchant who, having voluntarily assisted with his means and ability a group of insolvent merchants, saved them from bankruptcy and started them again as going concerns, would then obligate himself to become a party to their future business embarrassment, at their dictation, and at his own expense, and without having any share or interest in their emoluments.

I doubt much whether the indiviluals, associations and publications now advocating this sort of a partnership for Our Country would be willing to enter into a similar contract respecting their own private concerns.

President Wilson has proclaimed the absolute confidence of these foreign nations in the disinterested friendship and good faith of the United States. Well and good. Then let him constitute the United States an umpire of their international disputes, at their own hazard and cost, with a league among themselves to abide by its decisions in their future mix-ups.

In the present stress, it seems that the Senate should ratify the treaty of peace, reserving and excepting therefrom all and every provision and obligation relating to the designated League of Nations wherein applicable to the Unted States; and, thereupon, ratify the defensive treaty with our sister republic—Glorious, Heroic France.

This would be a safe and sane solution and would have the approval of all practical, patriotic, red-blooded Americans.

The complicated entanglement of this unique net work of unguessable intendments could then be "interpreted" by the nations interested, without prejudice to the United Sates.

To Mine West Virginia Cannel Coal.

Capitalized at $250,000, the Huntington (W. Va.) Cannel Coal Co. has been incorporated to develop West Virginia cannel coal land. The incorporators are W. W. Smith of Huntington, J. D. Fried of Prestonburg, Ky.; William J. Bray, E. H. Callahan and L. K. Smith, each of Louisville, Ky.

Community Meetings for Kentucky Farmers Prove Most Successful.

Louisville, Ky., October 11—[Special.]—The joint campaign of the Louisville Board of Trade and the Kentucky Bankers' Association to promote development of the resources of Kentucky by holding farmers' community meetings of three days' duration each all over Kentucky during the past summer have just closed and already reports are coming to headquarters at the Louisville Board of Trade of very beneficial effects from these gatherings. Forty-one meetings were held, trained men from the State College of Agriculture, the State Departments of Agriculture, Roads, Health, and Education, and from the American Red Cross giving lectures on the development and improvement of farm crops and livestock, on road-building, better schools, marketing, community organization, sanitation and kindred subjects.

SHOWING POPULARITY OF COMMUNITY GATHERINGS OF KENTUCKY FARMERS.

Although it is felt that the benefits of this work are just beginning to be realized, James Speed, manager of the campaign, reports that results already achieved are remarkable.

For example, Jeffrey Morgan, head of agricultural extension work in Kentucky, reports that since the community meetings closed 15 Kentucky counties which have not already farm bureaus have either established them or have requested his assistance in organizing a bureau in their counties.

Mr. Morgan also reports that four counties which have not already agricultural agents have requested them as a consequence of this work and that in some counties, agricultural and home demonstration agents, who were to have been dropped by county commissioners, will be retained.

Miss Lida Hafford, superintendent of the Woman's Welfare Work of the American Red Cross in Kentucky, reports that nine towns in which meetings were held have requested community nurses and the State Department of Education announces that four communities plan to have new consolidated school buildings as a consequence of inspiration gained from this State development work.

Dr. S. E. Brewster of the American Red Cross, who spoke at each of the 41 meetings on problems of community health and sanitation, declares he "never saw anything to equal them." He voices the view that they will be a potent factor in reducing the cost of living and social unrest.

"It is a pity," he says, "that not only every county in Kentucky, but every State in the Union, cannot have something of the same kind, and, further, I predict that other States will plan a similar work and that when they do this Kentucky plan of development will be a criterion."

Although the Louisville Board of Trade and the Kentucky Bankers' Association raised a fund to pay the expenses of these meetings and furnished tents and organizers so that three could be in progress at one time, not a few counties have already voiced the view that they will have meetings next year on their own resources. Many others ask that they be remembered with meetings next year. "It was the best thing ever attempted in our county," is a common testimonial in the scores of letters of approbation that are coming to the Louisvile Board of Trade.

The community gatherings were proposed by John B. McFerran, a former Louisville pork packer, now 83 years of age, who

YOUNG PEOPLE GATHERED UNDER BIG TENTS AND FOREST TREES TO LEARN HOW TO LIVE BETTER AND HOW TO RAISE BIGGER CROPS.

THIS IS THE WAY THE YOUNG PEOPLE CAME TOGETHER TO ATTEND THE FARMERS' COMMUNITY MEETINGS.

since his retirement from active business has been an active advocate of improved rural schools and farm life conditions. Judge R. W. Bingham, publisher of the Louisville Courier-Journal and president of the Southern Commercial Congress, suggested that the Louisville Board of Trade sponsor such a campaign as Mr. Ferran had proposed.

It was decided to take up the work and Mr. McFerran and Judge Bingham started the work of financing a campaign with contributions of $1000 each for the work. Other wealthy Louisville men and corporations made similar subscriptions and the Kentucky Bankers' Association voted to co-operate in the campaign. The meetings extended all of the way from the Mississippi River to the Virginia border and from the Ohio to the Tennessee line.

Many inquiries concerning the Kentucky development campaign have come from other States, among them one from the Tennessee Bankers' Association.

Railroad Chaos Reported in Texas Oil Regions.

Austin, Tex., October 18—[Special.]—The railroad situation in Northwest Texas is a desperate one, and the officials of the Federal Railroad Administration have candidly admitted that they see no hope for improving it; the only solution offered for amelioration of a condition of congestion which is taxing the energies of the farmers, the merchants and the oil developers is "co-operation btween shipper and railroads," and this is offered as a panacea for a great many ills by no less an authority than W. T. Tyler, Federal director of operation of railroads.

Mr. Tyler had conferred with the Federal officials of the Texas roads which are mostly complained of before he made this statement; so he undoubtedly reflects their official views. He does reflect what they say in open hearing before the Railroad Commission.

Frank Kell of Wichita Falls gave the cause of the evils complained of, but suggested no remedy for prevailing conditions. He cited the fact that more than 100,000 people have poured into the new Texas oil fields within a year; that Wichita Falls has jumped from 15,000 to 60,000 population within six months; that Burkburnett has grown from 2500 to 20,000 within less than a year; that Ranger has increased in like proportion and that there are new towns where there was open cattle range before.

Not only have the railroads fallen down on the proposition, but they offer no hope of being able to pull out until such time as the period of oil development has settled down into steady production, which may be some years distant.

The railroads have built no new main line, but they have constructed many miles of sidings and have laid a great many miles of switching tracks within the yards. The work has been done hurriedly, and is not all it should be, and the congestion is so extensive that the resulting embargoes affect the whole State with the exception of Eastern Texas, where there is neither freight nor cars as a result of the heavy and continued rains.

The oil men, desperate because leases are about to expire and because they cannot get their rigs by freight, have taken to shipping them by express. This has resulted in so burdening that service that perishable stuff is left standing on trucks at stations because there is no room for it in the cars. Then when the destination of the heavy hardware is reached—and at times whole carloads of pipe are shipped by express and in express cars—the passenger trains must be laid out until the stuff is unloaded, throwing trains off their running time and seriously discommoding everyone.

Complaints pour into the State Railroad Commission, but all it can do is to hold hearings, develop evidence and then make recommendations to the Federal Administration, where they are promptly pigeonholed and forgotten.

Galveston Causeway Will Be Completed Next Year.

Galveston, Tex., October 11—[Special.]—The Galveston causeway will probably be completed some time in November, 1920, according to a recent statement made by A. A. Sangster, of the firm of Larkin & Sangster, Inc., contractors. Already two-thirds of the width of the entire rehabilitated portion has been completed, and it is expected that within a week or two work will begin on the other one-third. The recent tropical hurricane did very little damage to the work, and construction was resumed within a week after the storm. Local experts state that the structure when complete will cost in the neighborhood of $3,000,000.

Lease Trading and Selling Active in Oil Fields—Production Hampered by Bad Weather.

Austin, Tex., October 18—[Special.]—Another protracted period of rainy weather has seriously interrupted oil development operations in all of the Central West Texas fields. The roads are almost impassable, and the transportation of machinery, material and supplies for the field workers is an impossible task in some localities. The effect of the bad roads is apparent on drilling operations and production. The business of trading and selling leases and royalties continues active, however, and a number of transactions of considerable magnitude have been recorded during the last few days. Perhaps the most notable of these was the sale by J. I. Stanley of a lease on 45 acres of his farm in the Burkburnett field to a syndicate of New York men for $3,500,000. Several producing wells are upon the property and are included in the deal.

Developments in the Desdemona field continue to excite the interest of oil operators. What was originally believed to be a small pool of petroleum there has been widened until it now covers a proved area of nearly 500,000 acres of land. It is thought by some that the area may be extended until it connects up with the producing fields of the adjoining counties. Lease prices in the outlying territory have stiffened in anticipation of production being obtained far beyond the present proved limits.

Many of the smaller independent producers in the Burkburnett field are much disturbed over the recent reduction of the price of light crude in that particular field from $2.25 to $2 per barrel. They fear that this lowering of the price may be only the first step toward a further reduction. It is very generally admitted that any big fall in the price of crude petroleum would cause a decrease in drilling operations by the smaller companies.

The flooded condition of the Red River washed out a long stretch of pipe lines of the Texas Company and the Empire Gas & Fuel Co., thus delaying the relief that was expected to come to the congested Burkburnett field. The flood also interfered with oil development operations.

Slow drilling progress is being made in most of the wildcat wells throughout the State. In Palo Pinto county strong gas flows have been obtained, and production is expected any time. According to advices from Starr county, the wells which are being drilled at points about 18 miles north of Roma, on the Rio Grande, by the Empire Gas & Fuel Co. and Spurrier & Co. of St. Louis, Mo., have developed flows of oil of high grade.

In the heavy crude fields of the Gulf coast region the West Columbia field continues to lead all others in the matter of production. It now has a daily output of about 30,000 barrels. The principal companies operating in that field are the Humble Oil & Refining Co., the Crown Oil & Refining Co., the Texas Company, the Gulf Production Co. and the Sun Company.

Enormous quantities of Mexican heavy crude are being received at Texas Gulf ports this month. It is stated that not only are the railroads coming more and more to use the Mexican and Gulf coast petroleum for fuel, but that industrial plants throughout the country are installing oil burners.

$5,000,000 Hotel of 25 Stories for Kansas City.

A new 1200-room hotel will be erected at Kansas City, Mo., by a consolidation of hotel interests in that city. Preliminary plans and specifications have been approved. A holding company to take over the Whitmore Hotel Co. and the Baltimore Hotel Co. will be formed with Samuel J. Whitmore as chairman of the board of directors.

The new Building will be 25 stories high, and operated as a commercial and business hotel, with a number of unusual and distinctive features. The total investment for building and ground will reach $5,000,000.

$600,000 Thermos Bottle Works for Huntington.

Thermos bottles will be manufactured at Huntington, W. Va., in a $600,000 branch plant which the American Thermos Bottle Co. of New York will build. A 30-acre site has been obtained, and one-story brick-concrete buildings will be erected. The company writes to the MANUFACTURERS RECORD that plans have not been formulated sufficiently for details to be announced, but will probably be determined within 60 days.

Rush of Banks Into Texas Oil Fields.

Ranger, Tex., October 18—[Special.]—During the past six months more new banks have been chartered in the Texas oil fields than were created in the entire State during the preceding two years. This includes both State and National banks, the demand for charters being about evenly divided between the two classes.

So great has become the demand that the State Bank Examiners are unable to keep up with the necessary examinations preliminary to granting or refusing the charters. An instance is seen in the fact that seven groups of men are asking for as many charters for State banks in the new railroad town of Jakehamon, in Comanche county, adjacent to the Hog Creek oil field on the line of the Wichita Falls, Ranger & Fort Worth Railroad. This town was opened September 22, about 60 days before the railroad expected to be there.

The three members of the State Banking Board, consisting of Attorney-General C. M. Cureton, the State Bank Commissioner, George Waverley Briggs, and the State Treasurer, J. W. Baker, spent the past week in the oil fields and discovered that in most cases there is a public demand for the increased banking facilities asked, but in a few instances shanty towns in the immediate vicinity of remote oil pools have sprung up and are assuming a purely transitory importance. Very often they may not present the proper background for a banking-house. The banking facilities of all the oil field towns, although already greatly expanded, show a constant increase in deposits and a steadily growing banking business.

The board found further that they have granted some charters in towns that will doubtless be succeeded by railroad towns on the line of the Wichita Falls, Ranger & Fort Worth Railroad and other new lines that are building or projected to serve the oil fields. Jakehamon, named after Jake L. Hamon of Ardmore, Okla., the chief promoter of the road, is the first of these new towns to be opened. It will be followed by five or six in the oil fields of Eastland, Stephens and Young counties, in the territory now unserved by railroads.

The increase in population of the three or four Texas counties that are in the producing oil territory during the past 12 months has been several hundred per cent, or in the aggregate from 100,000 to 200,000 persons. The increase in the wealth is several thousand per cent.

The payroll alone in the former small cow towns has grown until it now ranges from $10,000 to $200,000 a week. The production of oil in these fields is of the approximate value of $400,000 a day, but much of the money thus received goes directly to the larger city banks, although in some of the oil towns the large producers are maintaining headquarters and carrying heavy balances in local banks.

Not only in the banking business is this country behind with facilities, but the want of men, materials and supplies extends to every known line of activity. There is no better market in America for army tents than is found in the oil fields, where they are used alike for residences and business houses.

Activities in Kentucky Oil Districts.

Paintsville, Ky., October 18—[Special.]—Of the 15 new wells reported in Kentucky yesterday, four are in the new Johnson county field, a few miles from this city. Pipe lines are being rapidly extended into this new field, and much activity is evidenced in lease taking, reaching out into the adjacent county of Magoffin, where some good-paying wells have been struck.

So far every county along the Big Sandy has produced oil. The counties include Johnson, Floyd, Pike, Lawrence and Boyd. Pike county is being invaded by oil development factors, and two or three good-paying wells have been struck in the Pond Creek territory, opposite Williamson, W. Va., while tests are going down in the vicinity of Pikeville.

In the Beaver Creek field of Floyd county there is some oil interest. In Lawrence county, along Blaine Creek, and at Webbsville there are some good-paying wells.

Stationary, Hardware Novelties, Etc.

HOLTZ & NORDHOLM, Gothenburg and Stockholm, Sweden.—Our firm is acting as representatives for American manufacturers and deals directly with the retail trade in Sweden through traveling salesmen. We are interested in stationery, hardware novelties, grocery sundries and other specialties. (New York address: Swedish Chamber of Commerce, Produce Exchange Building.)

Sweet Potato Yield Heavy, Grain Crops Short in Mississippi This Season.

Jackson, Miss., October 20—[Special.]—Grain crops in Mississippi are short this season, despite increased acreage, and the lack of corn will have an injurious effect upon the finishing off of hogs for market. There were 3,783,000 acres planted to corn this year, but the total yield will only be 57,789,000 bushels, compared with 66,300,000 in 1918 and 77,613,000 in 1917.

Of the State's food crops the sweet potato yield is the only one that will be larger than last year. Heavy rains and generally untoward seasons made it a hard year for the farmers. The sweet potato crop for the year is estimated at 9,262,000 bushels, as against 8,455,000 bushels in 1918 and 5,525,000 in 1917. The acreage this year increased 10 per cent over last year.

An excellent hay crop has been harvested and will go a long way toward wintering stock that might otherwise suffer because of the shortage of feed crops. The crop of lespedeza seed is good, and velvet beans are fruiting well. Sugar-cane is also growing well, and an abundant yield of syrup is promised.

The crop shortage has as yet had no hurtful effect upon business or construction operations, both of which are at full tide at present. Retail business throughout the summer was unusually good, and merchants are preparing for a large fall and winter trade.

Cotton is bringing good prices, and the feed crops that have been grown are also worth plenty of money. Labor is barely adequate to the needs of the farmers.

Bright Tobacco Grown in Virginia Region.

Richmond, Va., October 20—[Special.]—Strictly bright tobacco can be grown in the Virginia region. This was demonstrated during the past season, but its success did not become known until last Friday, when 3300 pounds were brought to the local market. The shipment was grown in Hanover county, within 10 miles of Richmond, and is the first record of this brand being grown in the Old Dominion region.

Three North Carolina farmers were the growers, the attempt being largely an experiment. Their efforts were well rewarded, for an average price of $66.25 per hundred was obtained for the shipment. Tobacco dealers here expressed great surprise when advised that strictly bright tobacco could be grown in the State. This tobacco is used largely for wrappers and in the manufacture of cigarettes. With the greater portion of cigarettes made in the State, the advantages to the growers in this section promise fair remuneration, and tobacco dealers predict that more acreage will be put in next season as a result of the successful experiment. Some of the product of the three Carolina men brought as high as $100 per hundred pounds.

The dark tobacco market opened here last week, and the offerings were exceptionally large.

In Danville the market was glutted for the greater part of the week. Farmer wagons loaded with the weed blocked traffic for several squares about the tobacco selling district, and many were forced to wait for days before being able to get their product on the warehouse floors to be auctioned off. Danville anticipates that all sales will be far eclipsed this year.

At Lynchburg the sales also have been exceptionally large, with high prices prevailing. At South Boston during the past week one wagon-load brought the grower nearly $1000.

Jones & Lamb Company's Packing Plant Additions.

Final details for the Jones & Lamb Company's meat-killing and packing plant additions at Baltimore include various buildings equipped with new machinery. The plant is being trebled in capacity and the company will enter the export trade, anticipating an annual volume of $10,000,000 worth of meat and vegetable oil products. Buildings recently purchased are being remodeled and a six-story fireproof concrete structure is being added. Electric generating and refrigerating equipment will be included in new $100,000 machinery to be installed, the date for opening bids not having been decided. The enlarged plant will provide 15 departments in 10 buildings on 5¼ acres of land, with weekly capacity to include 15,000 corn-fed hogs. C. B. Comstock of New York is the engineer-architect, and the Consolidated Engineering Co. of Baltimore is the contractor for the building construction.

Shortage of Apartments and Houses at Richmond Typical of Conditions All Over the South.

Richmond, Va., October 20—[Special.]—Notwithstanding the fact that upwards of $5,000,000 worth of apartment-houses have been constructed in this city during the past summer, the fall season still finds the demand far from being satisfied. Inquiry at more than a dozen real estate offices during the past week disclosed that not a flat is available. Dealers have reached a state of mind that brings forth a broad smile when inquiry is made for flats or apartments. Invariably the answer is: "Sorry, we'd like to oblige you, but they are simply not to be had."

Prices also have gone upward as a result of the great demand. The average six-room flat is costing the renter from $75 to $95 per month, depending somewhat on the location, while several of two rooms and bath, three rooms and bath and kitchenette are bringing the owners up to $75 per month.

The rental situation has reached an acute stage here, and hundreds of families are still housed in boarding-houses awaiting the completion of suitable living quarters.

Discussing the situation a day or two ago, one agent declared: "The difficulty is that during the four-year war period no building whatever was done in Richmond. Under normal conditions we put up here an average of 1000 to 1500 flats and houses to take care of the normal growth. With a large influx of people added to the regular demand for housing facilities, it is readily explained why such a scarcity of homes prevails."

A large number of apartment-houses now are under construction. With a string of four three-story apartments completed this summer and rented long before the construction was completed, officials of the Richmond College property have let the contract for additional flat buildings which, when completed, will fill an entire city block 500 feet square.

Improved Grain Export Situation at Galveston, Tex.

Galveston, Tex., October 20—[Special.]—An immediate improvement in the grain export situation at Galveston is indicated by the recent announcement that the number of cars for which permits may be issued daily has been increased 100 per cent, or from 50 to 100. Tonnage in port and in sight sufficient to move 3,500,000 bushels is the prospect for October. Additional tonnage is being lined up to move export wheat from Galveston, according to E. F. Newing of Galveston, second vice-president of the United States Grain Corporation.

Daily records compiled in the office of J. W. Daley, associate member of the Southern Export Committee, show that on October 14 grain in the following amounts was stored in elevators there and en route for export or local consumption:

In elevators at Galveston, 1,887,461 bushels of wheat, 43,067 bushels of rye, 84,184 bushels of barley, 53,357 bushels of oats; a total of 2,068,069 bushels of all grains. In elevator at Texas City were 327,814 bushels of wheat. In elevator at Port Arthur there were 146,284 bushels of wheat.

Building Activity in Mississippi Continues Unabated.

Jackson, Miss., October 20—[Special.]—Building activity continues at flood tide in Mississippi. Architects of this city are swamped with work. Included among the more important buildings to be erected at once are the Humphreys County Courthouse at Belzoni, to cost $200,000; the Itawamba Agricultural High School, to cost $85,000; the $60,000 Masonic Temple in Jackson, the $50,000 Masonic Temple at McComb City, and a large dormitory for a girls' school, St. Mary's of the Pines, at Chatawa.

A $75,000 sanitarium has just been completed in this city, adding much to the excellent hospital facilities of the city, and equipped in the most modern fashion throughout. Scores of business buildings are in process of construction, and many handsome schools are under way all over the State.

Glass Container Works for Florida.

Plans have been determined for the works to be built by the Tampa (Fla.) Glass Co., previously organized with $350,000 capital. They provide for facilities with daily capacity 30 tons of glass containers, 300 operatives to be employed. One-third of these will be skilled glass workers. W. G. Brorein is president of the company.

Changes at Plant of Mobile Shipbuilding Co.

Mobile, Ala., October 18—[Special.]—The Mobile Shipbuilding Co.'s official family was considerably shaken up at a meeting of the board of directors held here October 13. Frank McLaughlin, general manager, was removed from office, and President H. L. Brittain of New York will remain in Mobile to look after further readjustments until McLaughlin's successor is selected. No explanation of the reason for the removal of McLaughlin was made.

The following offices were abolished: Assistant to the general manager, executive aid to general manager, secretary to the general manager, works manager and executive aid to the works manager.

That plant efficiency may be increased, President Brittain will make adjustments ' some of the departments.

The company expects to construct 12,000-ton steamships upon completion of present contract for twelve 5000-ton steel steamships. Two 5000-ton vessels have been launched. A third will take the water later this month. Negotiations for building 12,000-ton steamships are now under way, according to an official of the company.

Texas Rightly Demands Equal Recognition for Agriculture With Industrial Districts.

Believing that the agricultural interests of the State should receive full consideration at the hands of the Industrial Conference in Washington, President J. S. Cullinan of the Texas Chamber of Commerce, acting with the authorization of the executive committee, sent the following telegram to Hon. Franklin K. Lane, chairman of the Industrial Conference:

"We desire to go on record urging the imperative need of placing the farming interests, farmers and farm labor, on equal basis, all factors considered, with recognized industrial, transportation and other labor, in hours of production, service and compensation for same. Texas, a great agricultural State, is vitally interested in this subject, as under present conditions farm production of living essentials is very seriously hampered by lack of farm labor."

Larger Industrial Plants of Chattanooga Have Three Months' Coal Supply.

Chattanooga, Tenn., October 17—[Special.]—Should coal miners of the Tennessee-Kentucky district strike, as they have threatened, the majority of Chattanooga's industrial plants will be able to continue operations for a period of three months, an authority estimated today. Especially the larger manufacturers have taken advantage of the talk of a shortage and have laid in their winter coal supply.

Domestic coal conditions are much worse. Many domestic consumers have delayed the purchase of coal, and there is not more than a two-weeks' supply on hand in the local retail yards.

A survey conducted by the railroads operating committee, and just recently completed, revealed that about one-third the winter's supply of coal has been purchased.

Heavy Yield of Soy Beans in Yazoo County, Mississippi.

Jackson, Miss., October 20—[Special.]—An extraordinary yield of soy beans is reported from Yazoo county, where the legume is widely grown, and where the county farm demonstration agent, W. R. Ritch, is an earnest advocate of planting the beans with every acre of corn sown. T. H. Griffis, who lives in the hills near Yazoo City, has beans this year that will average 75 bushels to the acre, making the seed crop alone worth $300 an acre, in addition to the hay. The seed bring $4 a bushel and find ready sale.

Farm Tractor Works for New Orleans.

Four-wheel-drive motor tractors for agricultural purposes will be built at New Orleans by the Gulf States Tractor Co. of Orange, Tex., where the company has been organized with $6,000,000 capital. New Orleans buildings with foundry have been purchased and will be equipped for the new enterprise. The officers, all of Orange, are: President, W. E. McCorquodale; vice-president, A. C. Fleig; secretary, M. G. Davies; treasurer, U. B. McCorquodale.

Typical of Many Letters Which Fill Our Mail

"A Willingly Unproductive Man at Present Is a Traitor."

The New York Purchasing Agency, Inc.,
Herbert H. Neale, President and Treasurer,
Contractors' and Builders' Machinery, Equipment and Supplies.
New York, N. Y., October 15.

Editor Manufacturers Record:

For the past year or two I have never failed to read religiously all your editorials and articles on topics uppermost in the minds of all thinking people, published in the MANUFACTURERS RECORD, and have been an ardent admirer of your consistently fearless stand for all that is right, just and American.

By your courageous attitude you have made your paper a power for good in the entire States, and, realizing that power, I take the liberty of suggesting to you the following thoughts for your consideration:

The two principal matters confronting the nation today are unrest, with its resultant strikes, and the League of Nations.

Regarding unrest, of which strikes are the outward and visible sign, and the consequent tendency to Bolshevism. It would seem to me that if one or two of the largest strikes and menaces were immediately put an end to, it would have an instant salutary effect upon the whole situation. This could be done, I believe, without any further legislation.

Taking the steel strike as an example, I understand about 80 per cent of the strikers are aliens, the majority of whom cannot even understand or read English, who have been made the tools of agitators, and by their actions are menacing the industry and the very Government of the country—a Government and country which has given them a greater freedom and better return for their labors than their own counties could provide.

My suggestion to end such strikes is that a census be taken of all laborers at strike centers and registration cards issued. All aliens on strike should then be given to understand that their action is inimical to the interest of the country of their adoption, which is giving them shelter, and to take their choice between going back to the job they have left, finding other work to do, or being locked up as vagrants to be deported whence they came as quickly as possible, never to be allowed to return. In other words, "Go to work or rid the country of a non-productive presence." At this time any man who is willingly unproductive is a traitor and should be treated as such.

The scale of labor wage is today much higher than the increased cost of living warrants. The laborer who works is 50 per cent better off than the great majority of that other class of workers that come between the so-called labor and capital classes. This latter class is suffering great privations because of the demands of labor, and it is only fair that labor should now forego its unwonted luxuries and be content to live on a fair living wage.

So much for unrest.

I will not take up so much of your time on the League of Nations, which you discuss so ably. I simply wish to call attention to a point I have not yet seen raised.

Provided that the League should be so revised with the proposed admirable amendments and reservations to protect all American interests, still leaving her solidly on the map, and be so ratified. It has been stated by members of the Peace Conference that the League is an imperfect document. By those countries favoring it, it is looked upon simply as a foundation upon which a perfect League might be constructed. The question is, "Constructed by whom?" and "How do we know to what extent it will be altered?" In time it might not be anything like the instrument ratified. A unanimous vote, which President Wilson states, correctly or incorrectly, is a sine qua non in the League, will undoubtedly prove a farce. Suppose this to be so, and again suppose that by unanimous vote it is altered so that all changes and additions to the articles of the League are made by some majority vote, where would the will of the American people stand? Into what sort of a noose is America putting her head?

Also, are we always to be guaranteed representation in the League by Americans who are for America, or are we to take a chance on having dreamers and idealists represent us?

HERBERT H. NEALE,
A Naturalized American.

Labor Unions Have Been at Fault.

W. J. DERMOTT, Construction Engineer.
East Radford, Va., October 15.

Editor Manufacturers Record:

Your telegram under date of October 10 to Hon. E. H. Gary, chairman United States Steel Corporation, can win nothing but praise and applause from every right-minded citizen of this great United States. Even the patriotic member of the labor union must see and recognize the righteousness of your utterances in that telegram; must see that in their patriotism lies the upholding of this great Government that protects them in their citizen rights.

This Government was first made up by men of integrity, has since been upheld by men of integrity and today that same patriotic element is standing firm that that same Government may not be shaken.

The labor unions have been at fault in the conduct of their union bodies; they have been at fault in admitting to membership any man who could pay the membership fee regardless of his present standing as a citizen, regardless of his previous record as a citizen or if a citizen of this country at all.

From this has crept into our midst Bolsheviks, Soviets, Reds, Socialists, along with an element too ignorant to know any party by name except "down with the Government," while a man higher up has worked through them to invade the true sentiment of many coworkers with honest intentions.

You knowing that your telegram would be widely circulated, allow me to congratulate you and compliment you on your boldness and fearlessness in this truth utterance.

W. J. DERMOTT.

The Soul of America Is Still Undamned.

Chamber of Commerce, Inc.,
Middlesborough, Ky., October 18.

Editor Manufacturers Record:

The October 16th number of the MANUFACTURERS RECORD reached my desk this morning, and I find that you have published my letter to the Literary Digest, which was inspired by your editorial entitled "The Country Should Stand By New York Business Publications." Please, therefore, accept my thanks.

It is highly proper that we should express to you our sincere appreciation of the splendid fight you are making for America and its ideals and traditions against radicalism, Bolshevism and anarchy. Everywhere I go I hear favorable comments, and have heard them for the last four or five years, of the splendid Americanism displayed by you and your journal.

There was an impression at one time that the MANUFACTURERS RECORD was the exponent of the South, but you have it correctly named when you call it "The Exponent of America." There is no publication, and I may safely say no single influence, in this country today that is accomplishing so much good for American ideals and traditions as the MANUFACTURERS RECORD. Business men and business organizations should align themselves with the MANUFACTURERS RECORD—get squarely behind it and the things for which it stands.

It is refreshing indeed to read your editorials after reading the reports published in the press of strikes, threatened strikes, even threatened revolution, for your editorials lend to the hope that the real soul of America is still untainted with poisonous influences from abroad.

A. I. HAYS, Secretary.

Fighting for the Right.

Herbert A. Wagner, Pres. Chas. E. F. Clarke, Vice-Pres.
Charles M. Cohn, Vice-Pres. John L. Bailey, Treas.
J. E. Aldred,
Chairman of the Board.
Consolidated Gas Electric Light & Power Co. of Baltimore.
Baltimore, Md., October 16.

Editor Manufacturers Record:

I appreciate the fearless American stand that the MANUFACTURERS RECORD is taking and also the editor's contributions "fighting for the right against the dangers of today" and "the fear of God as contrasted with the spirit of anarchy that is manifested in some sections."

A. S. LOIZEAUX, Electrical Engineer.

Faith That Americans Will Triumph in Final Outcome

Chattanooga Armature Works.
Chattanooga, Tenn., October 15.

Editor Manufacturers Record:

I am not throwing bouquets when I say your paper is doing more for America and Americans than any other publication of today. Your question as to the feasibility of a law to prevent aliens belonging to labor or other organizations; I believe this would lead to secret organization and put us back to sleep until such time as they were strong enough to give trouble again. Let us eradicate the evil and send them back to the country from whence they came, or interne them the time necessary to educate them in our ways and customs. In regard to the riveters at $29 per day; that is only $21 per day more than they are worth, and Uncle Sam knows it as well as you or I, but he's got his foot in and can't get out so long as Sam Gompers has his way with Mr. Wilson. I trust you will not grow weary with well doing, and I have faith to believe Americans will triumph in the final outcome.

FRANK STEFFNER,
President.

We Trust It May Be So.

St. Joseph, La., October 12.

Editor Manufacturers Record:

Please pardon us for not sending in our check to cover subscription sooner. We should have done so. We have just read with deepest interest and indorsement your editorials on "Overturn the Dirty, Rotten Government of the United States, Said Trotsky," and "Rampant Radicalism Would Ruin and Rule," and we hasten to send in our subscription that we may not miss any of your splendid American editorials. The writer does not agree with you in all of your views on the treaty and the League of Nations, nor in the stand you have at times taken in regard to President Wilson, but he does believe that you are fair and honest all the time and that you try to uphold what you think best for our beloved country. In other words, I believe in constructive criticism honestly expressed. Keep up your splendid work for America and our Southland, and may the great God that we both serve and love keep you from harm.

A. M. SMITH, President.

Read by Whole Family.

Home Mission Board of the Southern Baptist Convention.
Atlanta, Ga., October 14.

Editor Manufacturers Record:

In my judgment, America has had no citizen who has shown greater patriotism during the period of the war and following than yourself.

I do not know of any editor of any publication who has made his medium so vital in the discussion of the burning questions of the hour. The MANUFACTURERS RECORD is read by every member of my family, including myself, though my whole life involves so much reading that I do not read many papers.

May the blessing of God be upon you in your great efforts for Americanism and righteousness.

Sincerely yours,
VICTOR I. MASTERS,
Superintendent of Publicity

As Viewed by Major Huger of Confederate Fame.

Skyland, N. C., October 12.

Editor Manufacturers Record:

Please mail the three next issues of the MANUFACTURERS RECORD to me at Nashville, Tenn., 120 21st avenue south, and after that date to me at Melbourne, Fla.

The MANUFACTURERS RECORD is my guide, philosopher and friend, and without it I am like a ship at sea with neither compass, rudder or pilot to keep me headed in the right direction.

Sorry to trouble you, but there is no possible way to avoid it.

Loyally yours,
F. K. HUGER.

Editorials Worth the Price.

J. A. Glover, President.
E. T. McGhee, Vice-Pres. C. E. McLin, Secy. and Treas.
Anchor Duck Mills.
Rome, Ga., October 16.

Editor Manufacturers Record:

We have your letters of October 14, and also your copies of the MANUFACTURERS RECORD of the 4th and 18th of September.

The editorials in these copies are worth the price of the subscription, and we want to see you keep this up.

Please find our check enclosed for our subscription.

C. E. MCLIN, Secy. and Treas.

"Heartily Commend Your Stand."

W. J. McKinley, Pres. and Gen. Mgr.
F. L. Smith, Vice-Pres. C. W. Jones, Secy. and Treas.
Southern Jellico Coal Co.
Jellico, Tenn., October 17.

Editor Manufacturers Record:

We are enclosing herewith our subscription to your paper and our check for $6.50 for the next 12 months.

We find that you, through your connections, are giving us what we need as citizens of the United States, and in a way that all can understand, and we heartily commend your stand on the issues of the day and wish you success in your further efforts along this line.

W. J. MCKINLEY, Pres. and Gen. Mgr.

A Business Man Mayor's Views.

EMMET D. GREGORY,
Real Estate and Loans.
Dillwyn, Va., October 15.

Editor Manufacturers Record:

The business people and loyal Americans here heartily endorse your editorials. Notwithstanding opinion which is not good at the cashier's window at either bank here or anywhere he is known. A reference to Dunn and Bradstreet will tell you who he is.

EMMET D. GREGORY,
Mayor.

A Confirmation.

PELICAN WELL TOOL & SUPPLY CO.
Shreveport, La., October 11.

Editor Manufacturers Record:

It is frequently said in our office that: "Any issue of the MANUFACTURERS RECORD is likely to be worth the price of a year's subscription." The issue of October 9 is another confirmation of that statement.

Yours truly,
PELICAN WELL TOOL & SUPPLY CO.

Endorses Stand on League of Nations.

Marianna & Blountstown Railroad Co., Jacksonville, Fla.

Editor Manufacturers Record:

I want to say at this time that I appreciate your stand on the League of Nations and your fearless editorials in general on other business subjects.

T. H. JONES,
General Industrial Agent.

For Americanism.

M. DE BRITO, 1532 Ainslie Street, Chicago, Ill.

Allow me to congratulate you on procuring that splendid article against military training by Dr. T. H. Dreher of St. Matthews, S. C.

His arguments are forceful, logical and typically American.

It is about time we "called a halt" on the element that is trying to Prussianize this God's country (and very nearly getting away with it)!

Your comments apropos of the utterances of Senator Williams of Mississippi are fine. What does this man mean—"protection of women?" Is mob law protection of women?

THE IRON AND STEEL SITUATION

FIRMNESS IN BIRMINGHAM IRON MARKET.

A Million-Dollar Hospital Built for Workers by Tennessee Coal, Iron & Railroad Co.

Birmingham, Ala., October 20—[Special.]—Southern pig-iron manufacturers are confident that there will be no trouble in disposing of their make right along for several months, and as a consequence attention is being given principally to the make. A little hesitation is noted in the selling, but there is evidence that this is the fault of the producers as much as any other cause, the manufacturers having sold quite liberally into the probable make of the fourth quarter already and now acting cautiously. Inquiries are numerous, many being for iron for delivery during 1920. Quotations are manifesting an upward trend and it is to be heard again that a little iron has been sold, spot basis, at $29 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. Consumers of pig-iron are now anxious to have delivery on old orders. Furnace companies are also making efforts to get out iron on time, and in such instances as business being placed in this district by reason of inability to get the commodity in other sections by reason of the strike of iron and steel workers, effort is being made to accommodate as much as possible. This is not being done, though, at a sacrifice of the regular customers of this district. The accumulated stocks have gotten up a little again and estimates are made of a little less than a month's make on furnace yards. This does not bring about the least uneasiness. Despite the fact that official announcement is withheld as to any export business accepted so far in this district, it is learned that the 1000-ton order placed by Japan is likely to be followed by other business. Furnace companies have been invited to bid on further export business, and very large tonnages are said to be offered. Both foundry and basic irons are wanted by the foreigners.

Inquiries being received indicate that the time for accepting business for 1920 is not far off now and when once started on will call for a large tonnage. Quotations for iron for first quarter promise to reach $30 before the coming month is half over, if it is not a fact before the end of this month. Spot iron is selling above $28 per ton, No. 2 foundry. The make in this territory is being pushed and no doubt is expressed that the output of furnaces for October will exceed that of September by a good amount.

The impending strike of the members of the United Mine Workers of America and those in sympathy is causing a little concern in the iron industry in this section. While there is some coal in reserve, it is hardly believed that should there be a material cessation of work there will be enough coal to operate furnaces. One of the larger corporations of the district is said to be well prepared on coal and coke to meet any emergency that may come up next month. The officers of the Union in Alabama assert that while their membership may not be more than 10,000 to 12,000 out of 25,000 mine workers, there will be a general obedience to the strike order and that the curtailment of coal production will be felt. However, there is a feeling that the strike is to be averted, either by an agreement between the employers and employes in the central competitive coal fields, including Western Pennsylvania, Ohio, Indiana and Illinois, or by the Government. Coal production as well as coke production in Alabama has increased considerably in the last two weeks, and where railroad cars are obtainable with which to handle the product, there is steady operation of mines. No word or comment comes from the operators in this district as to the probable mines, though intimation is to the effect that the miners by not giving the mine owners an opportunity to discuss the situation and also asking for so much, six hours a day and five days to constitute a week, besides a 60 per cent increase in the average wages of the mine workers, have worked somewhat of a hardship, if the strike is put into effect. Many of the industries are laying in fuel to meet the situation, if there be a strike.

Consumption of pig-iron in the Birminghim district and throughout the South is increasing rapidly. The cast-iron pipe plants have so many orders in hand and in sight that a statement is made that the pipe works are simply being swamped. All pipe pits in this district are being operated fully and there is a larger melt of iron now than for the past three years and longer. Cast-iron pipe prices are up again, four-inch pipe being quoted at $54 and the six-inch and over at $53. There is a steady outward movement of cast-iron pipe, the product going in every direction, California getting quite a little tonnage. Foundries and machine shops, also, are working on full time, with numerous orders in hand and in sight.

Steel mills in the Birmingham district are operating on more than 75 to 85 per cent capacities. Steel shapes of all kinds are in demand. The Gulf States Steel Co. has increased the bonus of the employes in the steel works at Alabama City and Gadsden. Enlargements and betterments are under consideration with the Gulf States Company.

Inasmuch as the shipbuilding concern was given an exemption from taxation by the recent Legislature, a test case is being made out as to the Fairfied Works, subsidiary of the Tennessee Coal, Iron & Railroad Co., the works here supplying material for and is considered part of the shipbuilding operations. Upwards of $40,000 per annum will be saved for a term of 10 years if the claim is sustained. The development at Fairfield is nearing completion. Prospects for further appropriations and extension of development in this district by the United States Steel Corporation are very bright.

The $1,000,000 hospital of the Tennessee Coal, Iron & Railroad Co. to be used for the service of the thousands of employes of the corporation in the entire district, has been completed and has been thrown open for public inspection. This hospital is considered one of the most complete and commodious in the country. Instructions and clinics will be given physicians and those employed in the institution will be given encouragement to attend clinics in the larger centers of the country.

L. Sevier, for the past few years vice-president of the Sloss-Sheffield Steel & Iron Co., has accepted the position of president of the Alabama Manufacturers and Operators' Association, and will give his entire time and effort to the position. It is proposed to bring about development of the objects of the association. Mr. Sevier will be succeeded in the Sloss-Sheffield Company by Hugh Morrow, a well-known attorney and member of the firm of Tillman, Bradley & Morrow. Special effort will be made to work up export trade for the manufacturers and operators of the State. The association has a membership of about 100.

Bids have been received and the contract will be let shortly for the terminals at Cordova, on the Warrior River, the United States Railroad Administration pushing all work on the river transportation. The new equipment ordered several months ago is beginning to come in, and by the end of the year it is believed the steel towboats, the self-propelling barges, the wooden barges and wooden steamers will be in service and traffic will be heavy, both down and up stream. Coal shipments down the river now are requiring all equipment in the service. The Port of Birmingham is also to be developed quickly, being located on Short Creek. Surveys are being made for another dam on the upper part of the navigation of the river, which will provide transportation for a large tract of virgin coal fields. Henry T. DeBardeleben, Birmingham, manager of the river transportation under the Railroad Administration, is anxious to have the river service developed as quickly as possible and is admonishing the citizens to give every attention to the development of terminals.

Better preparation of old material is enabling some of the dealers in the Southern territory to keep business going, and this, to a considerable extent, is responsible for the active turning over of stock. The quotations are considered firm, though consumers, for instance in heavy melting steel, are not offering the prices that are printed. On the other hand, dealers in scrap iron and steel say that the quotations given are but normal and that differentials in comparison with prices in the North and West are wide. The Southern scrap dealers only go into the larger centers when there is extreme difficulty in getting all the scrap that is needed. The statement that there is a continuous turning over of stock by the scrap dealers has greater significance than casual reading might show, for Government scrap has been obtainable with ease. Southern consumers estimate that the Government scrap will continue easy until after the turn of the year, when industrial and agricultural scrap will come into its own again. Industries consuming scrap are well supplied for the balance of the year, it is believed, though a

few fill-in purchases are being made. Activity among the various iron and steel-consuming industries is reaching a strong level, which means there is a daily consumption of old material.

Quotations of pig-iron anad scrap iron and steel in the South are as follows.

PIG-IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, $28 to $29 per ton; No. 1 foundry, 2.25 to 2.75 per cent silicon, $29 to $30; iron of 2.75 to 3.25 per cent silicon, $31 to $32; basic iron, $27.75.

OLD MATERIAL.

Old steel axles	$21.00 to	$22.00
Old steel rails	19.00 to	21.00
Heavy melting steel	20.00 to	21.00
No. 1 R. R. wrought	17.00 to	18.00
No. 1 cast	24.00 to	25.00
Stove plate	20.00 to	21.00
Old car wheels	20.00 to	21.00
Old tramcar wheels	19.00 to	20.00
Machine shop turnings	13.00 to	14.00
Cast-iron borings	13.00 to	14.00

THE STEEL STRIKE LOSING FORCE.

Radicalism Still Seeking to Dominate.

Pittsburgh, Pa., October 20—[Special.]—Today the iron and steel strike entered its fifth week. In each of the past three weeks it has receded, but only slightly. The strike ought to be over by this time, seeing that it gained nothing after the third day, and at that time it was not curtailing the production of the industry by more than 50 per cent as an outside estimate.

The common question in iron and steel circles now is why the strike continues, and the generally accepted theory is that it maintains its vitality only through being bolstered up by promises of the leaders that the labor conference at Washington will do something that will help the cause of the strike. Undoubtedly the leaders would be glad to have any pretext under which they could allow the men to go back to work and thus save their faces. The trade is following closely the reports of the proceedings of the conference and does not think there will be any interference with the strike. The trade is surprised that the resolution "recognizing," but which would probably be interpreted as "favoring," collective bargaining received the support of the representatives of the public, and the suggestion made when the conference was first proposed, that means should be found for definite and proper representation of unorganized labor, now appears in the form of a criticism.

The hope is now expressed in many quarters that the strike will begin to crumble rapidly within a week or two upon knowledge that help will not come from Washington.

The strike leaders have produced all the strike they were able to produce in the circumstances, and are now concentrating their energies upon efforts to hold meetings in Western Pennsylvania in regions where such meetings have not been permitted. Last week they tried to get Pittsburgh Council to investigate the refusals of the police, backed by Mayor Babcock, to permit meetings near the mills where strikes are attempted, but this effort failed. The Mayor made a public statement, saying that meetings had been permitted in districts where there was no trouble, and insisting upon the propriety of refusing permission for meetings in districts where such meetings would probably result in disorder. Then the strike leaders, through Rubin, their attorney, approached the Sheriff of Allegheny county, W. S. Haddock, protesting against various things. Sheriff Haddock replied in a strong letter, in substance reading the riot act to the strike leaders, charging them with preaching revolution and overthrow of the government, calling them agitators from outside, saying that the sooner they get out of Allegheny county the better, and observing that all their moves will be carefully watched. Sheriff Haddock has addressed a letter to Senator Kenyon, stating that an exhumation of the body of Mrs. Fannie Sellers, a labor organizer killed in a fight in connection with a coal company strike last August, proved that wounds in the back of her head had been made after her death, for the sake of producing evidence. The coroner's finding had been attacked by the labor leaders on the basis of these alleged wounds, which they claimed the Coroner's jury had ignored. The strike leaders have now gone into court for an injunction against Mayor Babcock and the police officials to enjoin them from interfering further with the meetings the strike leaders wish to hold.

While these efforts are being made the strike leaders content themselves with asserting that they are holding their own in the matter of the strike. They claim no gains, but do not admit the material losses they have suffered.

Operations Increase Slowly.

Mill and furnace operations have increased in the past week, but at almost as slow a rate as in the previous week. That the strike should decline is but natural, considering that it did not in the first week get the hold a strike needs to get in order to win. The remarkable thing is that the strike loses ground so slowly, that so few men are returning to work from day to day.

Thus, neglecting plants that have run full or nearly full, as well as plants that were closed entirely, there are three big plants that are illustrative of this point—the McKeesport plant of the National Tube Co. and the Edgar Thomson and Homestead plants of the Carnegie Steel Co., all in the lower Monongahela Valley, Pittsburgh district. On the third day of the strike these plants showed an average of between 50 and 60 per cent men at work. Then the number began increasing, but even now, almost four weeks later, these gains have accumulated only to the extent of the plants showing between 85 and 90 per cent, on an average, of full working forces. Moreover, in the last fortnight the additional men employed have outnumbered strikers several times over. The new men are probably from plants that are closed tight, men who want to work, but are afraid to try at the plants that are closed. Apparently, when the three works just mentioned are fully manned, some of the former employes will be out of jobs. The attitude of men who stay on strike at plants that are idle is much more readily understood than that of men who can see that the plants they formerly worked at are in operation.

Break in Strike Belt.

The largest thing in the whole strike is the strike belt previously referred to, comprising the Wheeling district, the Mahoning Valley and Cleveland, making an almost continuous line, north and south, with western Pennsylvania right on the east, operating nearly full, and various districts to the west operating more or less. This report a week ago noted that there had been no real break in that strike belt. Since then a break has occurred, but it is not the stampede that might have been expected. The break has occurred in the Mahoning Valley, as at Youngstown there are now five blast furnaces in operation, one each of Republic Iron & Steel Co., Brier Hill Steel Co. and Carnegie Steel Co., and two of the Youngstown Sheet & Tube Co. It is doubtful whether the furnaces are as yet producing full tonnages. Each of the four companies named also had a few open-hearth furnaces, say from two to five, in operation, and is doing a little in finishing departments, while one has a Bessemer converter going. The actual production is a very small percentage of the total capacity of the Mahoning Valley, which has 27 blast furnaces, of which 22 were operating before the strike. Youngstown is near the foot of the valley, and at the head of the district is the Trumbull Steel Co., which resumed operations last week, as noted in last report. It has no blast furnace, and its steel department is small compared with the steel plants of Youngstown.

Production.

It would probably be a trifle beyond the mark to estimate the pig-iron and steel production of the country at 60 per cent of normal at the present time, but the rate is not far from that. From the low point, when the strike was only a few days old, the gain has been very small, perhaps 6 per cent.

The August report of steel-ingot production indicated that the country was making ingots at the rate of about 39,100,000 gross tons a year. On account of scrap and scale losses, this would mean that just before the strike the industry was producing finished rolled steel, the merchantable form, in plates, sheets, structural shapes, bars, etc., at the rate of about 2,500,000 gross tons a month, although with all plants fully employed and with labor efficient, which it was not before the strike, the capacity would easily be all of 3,000,000 tons. Production the first month of the strike, beginning September 22, was between 1,250,000 tons and 1,500,000 tons, involving a loss, by comparison with the output previously obtaining, of between 1,000,000 and 1,250,000 tons. The industry is now about to enter the second month of the strike with production at no more than about 1,500,000 tons a month, and even if the strike should now begin to crumble rapidly it would take time, on account of the disorganization of working forces, for actual tonnage output to work back to normal, and not far from 1,000,000 tons more of production is almost certain to be lost, even if the strike now plays out with the greatest rapidity anyone could expect. Thus the total loss in tonnage can hardly fall below 2,000,000 tons. On the other hand, even if the strike should hang on for some time still, waning only gradually, the loss in tonnage would hardly exceed say 3,000,000 tons.

The average market value of this steel in the form in which

it leaves the mills, bars, shapes, plates, sheets, pipe, tin plate, wire, etc., is about $73 per gross ton, and taking 2,500,000 tons as the mean between the estimates just made, the value of the tonnage lost would be about $180,000,000. It is a matter of personal opinion how the actual loss should be estimated. One might argue that the filling of the demand is merely postponed. Another might argue that the scarcity of steel will discourage builders and others from making plans that would call for steel six months or a year from now, whereby the industry would lose more than the amount just mentioned. Another might urge that the loss, whatever it may be, is not confined to the steel industry, but extends to the consumers of steel, whereby the consumer, denied $100 worth of steel, may lose $200 or $1000 of business. Thus, while automobiles sell for something like a dollar a pound, the steel as bought costs only a few cents a pound.

Eastern Kentucky Coal Production Shortened by Lack of Cars.

Whitesburg, Ky., October 20—[Special.]—Coal production from the Elkhorn and Hazard coal fields of Eastern Kentucky for the week ending October 18 shows a decrease of about 20 per cent from the week previous when the movement of coal cars was much more satisfactory. Some of the mining plants in the Elkhorn and Hazard fields were only able to operate three days during the week, others were able to run partially, only, for four days, getting but a very limited supply of cars; other operating companies, it seems, were more favored and were able to operate five days practically full time. Nearly all the companies received their full car supply the week previous, and operators were highly elated over the splendid prospects of a successful, prosperous season, after several weeks of more or less dullness of mining work due to the serious car shortage which has frustrated the plans of coal-operating companies for some time.

Investigations on the part of the Railroad Administration at Washington, and the ordering of hundreds of cars from eastern and southern roads into the Elkhorn and Hazard fields brought about more or less relief—especially for a time. There is, however, a report circulated now that thousands of new cars are being completed and that they will be distributed in the Eastern Kentucky fields within the next few weeks. This would offer relief, and permit operation of the mines to full time capacity beyond question. Some of the operators in Eastern Kentucky are charging that the railroads are not distributing the car supply equally, alloting more cars to some than others. Protests, as a result, are being made to the Railroad Administration. Some of the operators charge that the wrong distribution of cars has resulted disastrously for them, many of their miners leaving their camps and going to others where practically every-day work could be had. Constant protests are being made along these lines, it is said.

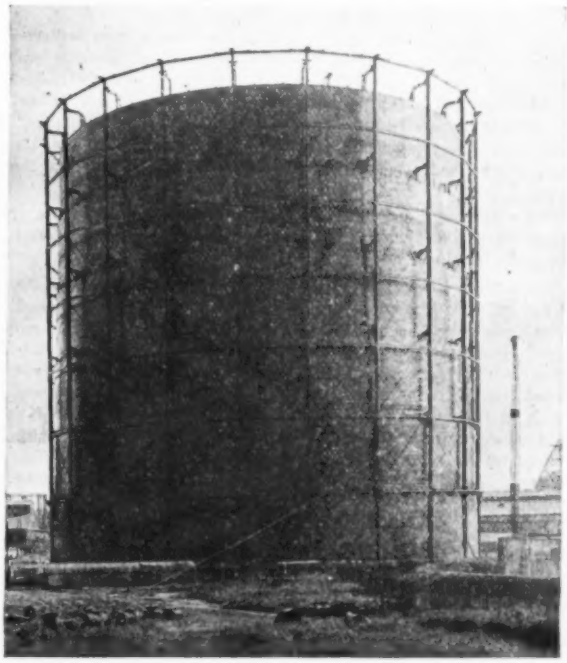
Indications show that the railroads entering the Eastern Kentucky coal fields are doing everything possible for the operators. Constant improvement is being made on the L. & N. main line in order to facilitate coal shipments, while no unsatisfactory distribution of cars seems to be undercurrent, although a number of operators are making the argument and are sending the protests to Government heads at Washington. A better car supply for this section is being urged by operators.

American Iron and Steel Year Book.

The year book of the American Iron and Steel Institute, recently issued, contains a lot of good material in addition to the proceedings of the one general meeting held last year, there not being any autumn meeting because of the war. Following the address of the president are articles by experts on the conservation of manganese, changes in blast furnace lines, triple process of producing electric steel (the last two subjects being copiously illustrated), promoting Americanization, relation of the trade papers to the iron and steel industry, effect of phosphorus in soft acid and basic open-hearth steels (illustrated), and our by-product coke oven industry in war, besides several articles embracing addresses made by various prominent men of the Institute, including Replogle, Schwab and others. The last article is "Prolonging the Lives of Busy Men," by the secretary of the welfare committee of the Institute, who, by the way, is a physician, and it gives many very important as well as interesting hints and suggestions for preserving one's health and strength.

Immense Gasholder Placed in Operation.

The Consolidated Gas Electric Light & Power Co. of Baltimore has recently completed an immense steel gasholder having a capacity of 6,000,000 cubic feet. It has a diameter of 219 feet and is 218 feet high, which means that it is as tall as the Baltimore skyscrapers and it covers an entire city block. Five million pounds of steel were used in building this structure. It floats in a reservoir containing 2,000,000 gallons of water. The cost of the gasholder was approximately $500,000 and it was erected by the Bartlett-Hayward Company of Baltimore.



HUGE STEEL GASHOLDER RECENTLY PLACED IN OPERATION BY THE CONSOLIDATED GAS, ELECTRIC LIGHT & POWER CO., BALTIMORE. CAPACITY 6,000,000 CUBIC FEET.

Drilling for Gas in New Orleans.

Pascagoula, Miss., October 10.

Editor Manufacturers Record:

The special election held in Pascagoula, October 17, to approve the issuance by the city of $75,000 5 per cent bonds to be used in building docks on the Pascagoula River and spur tracks connecting the Louisville & Nashville Railroad with the docks, was carried by a vote of 101 and 9 against.

The International Shipbuilding Co. has built a new schoolhouse for the accommodation of the children of the workers at its shipyard. It has now three steel ships almost ready for launching. In addition to the large number of houses already built by this company, it is building more houses for the accommodation of its workers.

The local building and loan association of this city, organized a year ago, shows that it has netted 17 per cent on its investments.

The news that wells are going to be drilled in the city of New Orleans for gas should be of interest to the entire country. The finding of the fossil shell "Rangia Johnsonii" on the shores of Lake Pontchartrain, with the logs of various wells in Southern Louisiana, Mississippi and Alabama, give indubitable evidence that this territory is of the same geological formation as the territory of the oil and gas well region of Louisiana, Texas and Oklahoma and other sections. The bringing in of a well of natural gas or oil in the vicinity of the city of New Orleans will give an industrial stimulous to all the Gulf coast section that will make its history read like an oriental romance. Inexhaustible deposits of glass sand, beds of clay most suitable for pottery and tile and making of cement are close at hand, and the production of cheap and convenient fuel will bring these into demand.

CHAS. E. CHIDSEY.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

Claims Cost of Living Can Be Reduced by Living in Florida.

C. T. MARSHALL, Tampa, Fla.

When the first German gun was fired, the Tampa cigar factories shut down, phosphate mines, sawmills, naval stores, shipping and most freight service stopped short. Every man who could rushed to trucking, and the products of the war gardens soon flooded the already congested markets. Last season, "presto change." Here was the shipbuilding with its inducing wages, and the farmers who had not already left, tried to get away from the farms.

There can be no argument but that to reduce the high cost of living, there must be more produced than is daily demanded. Especially is this true of eatables.

You write a letter saying that apples have been sold for $80,000 by one grower; but it takes years to produce apples. One small community near Tampa sold $4,500,000 worth of vegetables, and raised some fruit besides, selling $1,000,000 worth of oranges and grape fruit. One man who was working by the month, quit, rented eight acres and went to trucking. He sold over $10,000 worth in eight months. His first acre of head lettuce, 90 days after planting the seed, netted him $1900. Another man claims that in 100 days he sold off of 10 acres $50,000 worth, all in less than nine months from planting the first seed. No gold fields nor oil wells ever produced anything like this.

There are many 10-acre and larger tracts to be bought or rented in Florida, that would make money from the start, and be ready to relieve the market in 60 days after the landing in the land of sunshine and flowers by some good, intelligent and industrious farmers. And in a very short time, thousands of families could be not only benefiting themselves financially and otherwise, but also contributing to the trainloads of food sent to the frozen North to relieve the situation there.

Last season many truckers made $50 per day, and they did not have to profiteer and their products were sought after by buyers.

Conditions assure Florida of the very best and most profitable markets for the coming year, and indications are that it will continue indefinitely. Strawberry shortcake for your Christmas dinner, and new cabbage, green peas, tomatoes, cucumbers, green beans and anything you see in the best seed catalogs, you could have while you have been eating snowballs. Yes, you can have fried chicken, eggs, fresh pork or smoked, and plenty of milk and butter. You can beat old "H. C. L." a city block by producing your own. Oysters, fish, rabbits and quail are plentiful for the getting.

Please remember that there is no central State that has as little malaria as Florida; that the summers near Tampa are never hot. It seldom getting above 90 here, and never has been above 97 in 37 years' record. Tampa has the United States record of being the healthiest city in America. Tampa is the only seaport in the world that has not had a storm in 80 years.

Better Methods as Salvation of Cotton Farmer.

STANLEY F. MORSE, Consulting Agricultural Engineer, New Orleans.

The report of Mr. W. B. Yeary and the Texas Cotton Committee on the cost of producing cotton (44 cents per pound) is most interesting. The costs seem fair enough. Mule feed is about correct, as a mule will eat in a year about 90 bushels corn at $1.50, and two tons hay at $30 or $195 per mule. It is certainly better for the farmer to charge up every possible cost than it is to neglect some of the most important items, as frequently happens.

In reading this report one or two ideas have occurred to me. First, would a real "expert producer of cotton" be satisfied with about one-third of a bale per acre even under present conditions? Would such an "expert" continue to "put all his eggs in one basket" and not produce something else to sell besides cotton? Just suppose a *real* farmer raised two-thirds of a bale to the acre instead of one-third bale? What would the cost be then? Well, here it is based on the Texas figures:

Picking 14,400 pounds more cotton at 2 cents	$288.00
Ginning 10 more bales	65.00
Storage, insurance and interest for additional cotton	120.00
Extra plantfood taken from soil	180.00
Extra expense	$653.00
Total expense crop	2,200.00
Gross cost 9600 pounds lint	$2,856.00
Credit for 4½ tons cottonseed	315.00
Net cost	$2,541.00
Cost per pound	26½ cents

Of course, it might be difficult to get the extra cotton picked. But surely there is no chance of getting it picked if the farmer doesn't raise it. It is evident that greater production through more efficient farming means a lower cost. The question is, then, would the paying of a price based on poor farming encourage the poor farmer to remain inefficient and try to make his money by organizing and fixing the price of cotton? We know that the labor unions are getting more money for less work and greater inefficiency; but is this a sound production foundation for our economic structure?

Another thought: Will the cotton raiser benefit most from the increased price? Is he still going to pay tribute to the merchant who "advances" him to the tune of 25 to 100 per cent. interest? And how about the landlord who not only fails to maintain his buildings, etc., but permits the pernicious single-crop system to depreciate his lands? And what about the cotton brokers, gamblers and other parasites on the cotton market who use the producer as a pawn?

Raising the price alone is not going to emancipate the cotton farmer. Organization under wise, dependable leaders, co-operative warehouses, fair and easy credit based on diversification, long-time leases, and better methods will be the salvation of the cotton-belt farmer.

If It Is Mutiny for Sailors and Treason for Soldiers to Strike, Why Not Make Similar Laws for All Men in Public Service?

W. E. MENOHER, Lake Worth, Fla.

I have read with much interest some editorials reprinted from your publication concerning the right of men in public service to strike. I have wondered if it isn't possible for Federal and State laws to be enacted which would place the striking policeman, fireman, mail carrier or other public servant in exactly the same position as is the soldier or seaman who refuses to obey the orders of his commanding officer. The one is said to be mutiny, and the penalty for such conduct is severe. Why not by law declare the public servant who goes on strike guilty of mutiny and prescribe the same penalty as is provided for the mutinous soldier or sailor? It is going to require severe measures to protect the public, and there should be no delay in the matter of legislative relief.

This idea isn't a new one. I have seen it suggested before, but nothing has ever been done along that line, and I have wondered why. It has justice and sound reason to rest upon.

Your editorials opposing the so-called League of Nations, as well as on other great questions of the day, are the best I have read from any source.

The Baltimore-Southern Navigation Co., which has for some time been operating steamers between Baltimore and points around Hampton Roads, such as Old Point Comfort, Newport News and Norfolk, has established an extension of this service to Philadelphia via the Chesapeake & Delaware Canal, two large motor boats of 300 tons freight capacity each being placed on the route

RAILROADS

A Good-Sized Line to Be Torn Up.

The sale of the Georgia Coast & Piedmont Railroad to H. H. Dean of Gainesville, Ga., for $426,500 was confirmed last Saturday by the United States Court at Savannah, according to a report from there. It is stated that this means the tearing up of the entire track and its sale and distribution elsewhere, as well as a like disposition of the rolling stock and other property of the company. Mr. Dean's bid, it is stated, was made on behalf of a corporation which intends to thus "junk" the road.

Considerable concern is expressed at Savannah over the sale, as it is believed that it will mean a discontinuance of the automobile ferry service which the railroad has maintained over the lower Altamaha River at Darien, Ga., and this would mean the closing to through traffic of the eastern branch of the Dixie Highway.

The Georgia Coast & Piedmont Railroad is 98½ miles long, from Brunswick via Darien, Warsaw,. Ludowici and Glennville to Collins, Ga. It has been in the hands of Receivers F. D. Aiken and C. H. Leavy for some time.

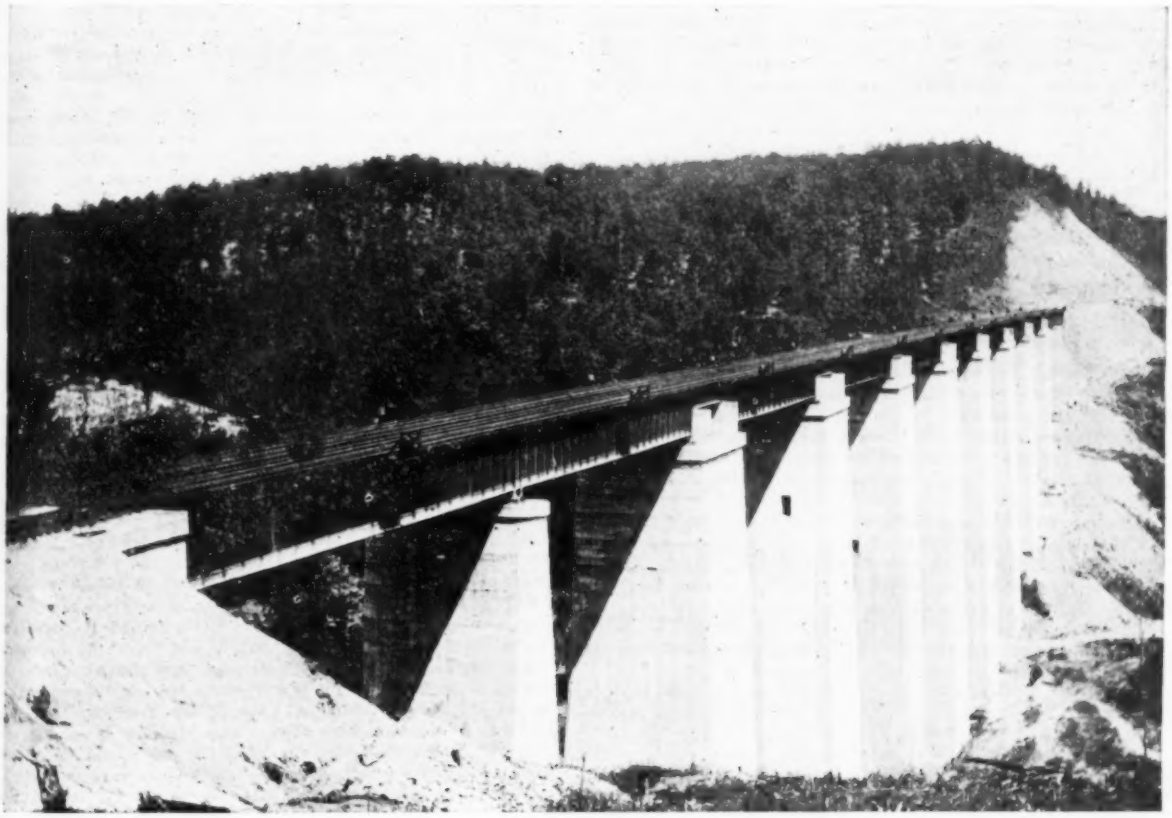
Has Bought Oil-Burning Engines.

The Savannah & Atlanta Railroad has purchased three oil-burning locomotives from the Baldwin Locomotive Works, Philadelphia, and two of them have been received at Savannah, the other engine being on the way there. This is another instance of the increase in favor of petroleum for locomotive fuel, as the Seaboard Air Line and the Missouri, Kansas & Texas Railway recently made very extensive agreements for purchasing large quantities of fuel oil and for the conversion of coal-burning engines for its use.

Sale of Line Confirmed.

The sale of the Artesian Belt Railway to Harry Landa of New Braunfels, J. E. Jarrett and W. R. Wiseman of San Antonio, Tex., and others for $167,500 has been confirmed by the court at Jourdanton, Tex. The purchasers, it is further stated, will organize a company and the line will continue to be operated. There are 45 miles of track from Kirk to Christine, Tex. J. B. Dibrell of Seguin, Tex., is to be in the new company. An increase of traffic is expected from the development of the Somerset oil field.

NORTH BROAD RIVER BRIDGE A GREAT ENGINEERING WORK.



Perhaps the most notable of many substantial structures erected in connection with the revision and double-tracking of the Southern Railroad's Washington-Atlanta line is the North Broad River bridge, located just south of Toccoa in the mountains of the northeastern part of Georgia. It is 1313 feet in length and rests on two abutments and eight hollow and two solid piers.

On account of the height of the reinforced concrete piers and the design of the eight hollow piers, which are of a type new for structures of this character, the North Broad River bridge is an unusual engineering work.

The highest of the piers is about 190 feet, the base of the rail being more than 200 feet above the bed of the stream. The hollow piers are oval on the inside and rectangular on the outside, measuring 30 by 34 feet at the top with a batter of half an inch to each foot of height on all sides. The side walls vary in thickness from 4 feet at the base to 3½ feet at the top. In each hollow pier there are diaphragms at intervals of 50 feet which tie the structure together. The piers are highly reinforced with steel rods. This style of construction resulted in a great saving over the solid type of pier. The two solid piers are next to the abutments and are the lowest in height. The superstructure consists of eleven 100-foot and eight 26-foot double-track deck plate girder spans.

Major William H. Wells, consulting engineer of construction for the Southern Railroad lines, supervised not only the construction of this bridge, but the entire revision and double-tracking of the line between Washington and Atlanta, 649 miles, the reconstruction of which was begun and continued several years ago under his direction when he was chief engineer of construction for the Southern Railway Co.

Gulf, Pensacola & Northern Plans.

H. B. Thorne, vice-president of the Metropolitan Trust Co. of New York, representing the bondholders of the Gulf, Florida & Alabama Railroad, bought in the property for $500,000 at the receiver's sale last week at Pensacola, Fla. A new company, the Gulf, Pensacola & Northern, is being formed to reorganize and manage the road. The long-talked-of extension to Jasper, Ala., is under consideration. At present the road terminates at Kimbrough, Ala. There are about $800,000 of receivers' certificates outstanding against the property. The directors of the new company are James H. Fraser, president; Arthur S. Butterworth, vice-president; Roscoe C. Greenaway, secretary and treasurer; Howard Humphreys, George Reeder, James Franklin Crutcher and Philip Dane Bell. Capital, $2,500,000; highest debt, $5,000,000.

Deal Which May Mean a Government Railroad.

According to a report from Laredo, Tex., a deal is pending which if closed will result in the transfer of the Rio Grande & Eagle Pass Railway to the United States War Department. The line runs up the Rio Grande Valley 26 miles, from Laredo to Minera, and probably it will be extended about 80 miles further to Eagle Pass, while it may also be extended from Laredo down the valley to Brownsville. This would afford the Government its own railroad along the Mexican border. C. B. Wright of Philadelphia, Pa., is president of the road, and E. F. Wager of Laredo, Tex., vice-president. W. H. Alley of Santa Barbara, Cal., and W. T. Wright of Philadelphia are also interested, with others of Laredo as directors.

Receiver Appointed.

D. R. Harris of Henderson, Tex., has been appointed receiver of the Timpson & Henderson Railway, 34 miles long, from Timpson to Henderson, Tex.

A Suggested Solution of the Return Loads Problem.

By D. C. FENNER, Manager, Public Works Department, International Motor Company, New York City.

One hundred per cent failure is how the Return Loads bureaus stand to date. This looks gloomy, but the sun is shining just behind the bank of fog.

The reason return loads bureaus have failed is because they were not handled in a businesslike manner.

It was simply nobody's business—with a natural big rotund zero as the result.

Return loads bureaus developed out of the needs of the war.

The railroads were unable to handle the enormous volume of freight, so motor trucks were brought to the rescue. It was soon observed that great trains of motor trucks were delivering vast quantities of materials long distances and returning empty. This was a 50 per cent waste of truck capacity, and somebody suggested return loads bureaus so as to utilize as much of the capacity of trucks as possible on the return trip.

This task was in nearly every case assigned to some clerk in a chamber of commerce, a board of trade, a merchants' association, or some other such body—in addition to his other duties.

During the hectic fervor of patriotism during the war, the men assigned the extra work of a return load bureau performed their duties with some degree of satisfaction; but with the war over, and a general let down of effort everywhere, why should a clerk worry his head off about truck profits that did not concern him, when he already had enough to do to take care of his regular job.

It was a case of giving something for nothing on the part of a clerk and getting something for nothing on the part of those who got the profits from the clerk's efforts.

But there is a solution to the return load problem—and only one solution.

Its first principle is to put the matter of return loads on a business basis.

The work can very likely most profitably be handled by the motor truck associations in various cities. A man should be especially assigned to the task and given a fair recompense based on the amount of business he can secure for the truckmen.

An interesting experiment in this line is being successfully and profitably conducted by the Motor Truck Association of New York.

The idea was conceived by Mr. T. D. Pratt, executive secretary of the association. It was put into effect when a number of live truckmen of New York donated the money to put the idea to the practical test of every-day operation. So successful has this experiment proved that the donators are being paid dividends on their donations, and are enjoying the novel experience of having the principal of their donations returned to them because the proposition of securing loads for truckmen has been conducted on a sound business basis.

W. J. Thompson has acted as the salesman for the bureau, which is known as the Motor Truck Association Trucking Exchange, with offices in the United States Rubber Building, 1790 Broadway, New York City. The business is secured on a 10 per cent basis, to cover the operating expenses of the exchange.

Mr. Pratt says perhaps the best type of man to employ as a salesman of transportation is one who has had previous experience obtaining freight business for railroads of interurban trolley lines. With little study such a man can become familiar with the operation of trucks and thereby be able to point out how to operate them efficiently and economically after he had secured the business for the truck owners. The man in charge of the work must know how to sell motor truck transportation and then how to advise the truck owners to whom he turns over the business as to how to make the most money out of it.

The M. T. A. Trucking Exchange acts as agent for the truckmen to sell his services, and, if desired, to collect his bills and pay him on collection, minus the 10 per cent commission for the exchange.

The exchange assumes no liability either for the truckmen or the shipper. It requires truckmen to carry insurance against all possible form of loss or damage to the shipper's goods in transit. The truckmen must be known to be absolutely reliable before business will be turned over to them. If a truckman fails to live up to the rules of the exchange, he is dropped and given no more business by the exchange.

The rate of pay a truckman receives for his truck is based upon its capacity. He does not get less than $3.33 an hour for a 5-tonner. The exchange makes as high as $35 to $40 a day regularly for eight to ten hours' work for trucks of this size.

Once the exchange took a contract at $25 a day for a job that had required nine hours by other truckmen. Part of the functions of the exchange is to advise the truckman how to handle the work in the most efficient manner, so this job was studied and the time reduced to seven hours, which brought up the hourly rate for the trucks.

The Board of Foreign Missions of the Methodist Episcopal Church at Columbus, Ohio, telephoned the Trucking Exchange last spring, asking them to deliver eight carloads of scenery by motor truck from New York to Columbus. Instead of doing this, the Trucking Exchange figured up the cost and informed the Board of Foreign Missions that the best way to handle the shipment was to turn the scenery over to the express companies and ship it in carload lots by express. Motor trucks at both ends of the route handled the shipment to and from the railroads. When the Board of Foreign Missions had finished with the scenery it was shipped to New York in the same manner that it was shipped to Columbus. The Motor Trucking Exchange handled the shipment both ways. This instance serves to show that the Truck Exchange considers the job to be done, and handles it in the most businesslike and efficient manner, even to the extent of turning the business over to the railway express companies.

James J. Hill's motto for successful railroad operation, "Trust in God and haul no empties," applies with equal force to motor truck operators. Trucks must be kept busy both ways of the trip, for profits in operating motor trucks depend upon keeping the truck busy the largest number of hours possible actually hauling loads.

The solution of the return loads problem seems in sight after the manner it is being handled by the Motor Truck Association Trucking Exchange of New York.

Vital to America.

P. O. SORENSON, Selling Agent, Sheffield, Ala.—We consider your magazine the very best periodical that comes to our desk, and we admire greatly your stand on League of Nations and other matters so vital to American interest at this time.

Good Roads and Streets

Mississippi Valley Scenic Highway to Become a Reality.

Memphis, Tenn., October 17—[Special.]—Assurance was made doubly sure at a meeting here this month that the proposed Mississippi Valley Scenic Highway will be improved and hard-surfaced from St. Paul to New Orleans. It will give the Middle West the first through highway north and south, and one of the first cross-country hard-surfaced highways in the nation. There are numerous roads across the nation, but none yet finished, and if plans are carried out, the new North and South trunk line will be one of the first of these to be completed.

MAP SHOWING ROUTE OF PROPOSED MISSISSIPPI VALLEY SCENIC HIGHWAY.

The highway was mapped out back in 1916, but organization was not accomplished because of the war. In February, 1919, at the instance of Truman Pierson, business manager of the Quincy, Ill., Chamber of Commerce, a convention was held at Burlington, Iowa, and definite steps taken for building the road. In March five divisions were organized, each to take care of a portion of the big system. Since then the various divisions have started the ball rolling to get the route definitely established and work started.

The Mississippi River Scenic Highway will be truly scenic, for it will open up a country that is not greatly traversed now, while it will touch many points of historic interest. From St. Louis to New Orleans it will go through a section of the South that is little known to the man of travel. From Memphis to Natchez, Miss. it will tap the fast-growing famous Delta of Mississippi, and above Memphis to as far as Cap Girardeau it will penetrate the rich valleys of Northeast Arkansas and Southeast Missouri.

The northern division follows for many miles the shores of Lake Pepin, and it will pass through the proposed Mississippi Valley National Park at McGregor, Iowa. It will be in sight of the Keokuk dam across the Mississippi River, and at Quincy will pass the park where Lincoln and Douglas conducted one of their famous debates. At Hannibal, Mo., the traveler will see the home of Mark Twain. Incidentally it will tap, on the Illinois side, the famous county of Calhoun, noted as the only Illinois county without a railroad.

The route from St. Louis to Cape Girardeau is along the east foothills of the Ozark Mountains and on south the pike will tap a country that has the semblance of prairies. This land once was covered by an arm of the Gulf of Mexico, the land being created by river deposits just as is now going on below New Orleans. In recent years levees and drainage have removed all danger of overflows and standing water, and the region is developing into one of the richest farming sections of the United States. One of the reasons for its slow development is the fact that it has been out of the line of travel.

At Memphis the road crosses from the west to the east side of the Mississippi River over the last road bridge across that river below St. Louis.

Throughout its length the road is tapped by scores of cross-country highway systems, many of them national systems. At Memphis alone there are 13 trunk lines converging, largely because that is the one point for crossing the Mississippi River. Building of the southern divison was assured recently, and the new scenic highway will become a part and parcel of the gigantic system of fine roads being constructed now in Arkansas and Mississippi.

$8,000,000 FOR NORTH CAROLINA HIGHWAYS.

Achievements of North Carolina Highway Commission in Good Roads Work Surpasses Expectations.

Raleigh, N. C., October 10—[Special.]—The North Carolina Highway Commission, reorganized early this year, under terms of a new and altogether admirable law, is doing a really wonderful amount of work; so extensive that the public mind of the State could not have conceived of it even as a possibility.

The Highway Commission as now constituted, by appointment of Governor Bickett, confirmed by the Senate, consists of Frank Page, chairman; J. E. Cameron, J. G. Norfleet and J. G. Stikeleather. It took office April 1 and then formed in the State 42 Federal-aid projects. Since that date this number has more than doubled: that is to say, there are at present 90 projects, comprising about 500 miles of highways. Of this number 29 projects are actually under construction.

The total expenditure of Federal, State and county money on Federal-aid projects approved up to today approximates $8,000,000 and comprises about 1400 miles of roads.

On taking office the Highway Commission found that three survey parties were employed. At present there are in the field 23 such parties and about an equal number of trained engineers are engaged in office work at headquarters at Raleigh and at the four division offices, which are located at Asheville, Greensboro, Raleigh and Kinston. A testing laboratory has been inaugu-

rated, with a competent staff, which tests with great care all road materials.

The Highway Commission has received thus far from the Federal Government 243 motor trucks, all sent to Raleigh, and from this point distributed to various parts of the State for use both in construction and maintenance work. The value of these trucks exceeds $1,000,000, for which North Carolina taxpayers have only to pay the loading charges and the freight.

The Federal Government has also given, free of any cost, except that of freight, a complete asphalt plant and also concrete mixers, together with a plant for building steel bridges.

The human interest in road building and maintenance in this State is so great as to amaze people who a few years ago thought in small figures. Now millions are in hand and millions more arranged for. It is not at all necessary for the Highway Commission to make a boastful statement, for the facts speak for themselves. The public sees in the present progress an earnest of vast development in the coming years, for the Legislature will supplement the present system by increased appropriations of State funds. Chairman Page, a highly competent engineer both in military and civil capacities, has a strong personnel on the commission.

District Engineers Appointed for Virginia Highway Work.

Richmond, Va., October 18—[Special.]—Highway building in Virginia was given another boost during the past week, when State Highway Commissioner George Coleman mapped the State into districts and appointed an engineer for each of them as well as for the eight subdivisions into which the State has been divided. These men will be known as resident engineers, and will give their attention to the task of equitably expending millions of dollars that will be available for highway construction during the next six years, approximately $60,000,000.

The resident engineers have been named for some of the larger cities of the State, with central headquarters in this city. C. S. Mullin and A. H. Pettigrew will be in charge of the two main divisions, and these men will serve in the subdivisions: Richmond district, Major W. I. Lee; Staunton, E. R. Cocke; Bristol, J. B. Keeler; Manassas, J. J. Forrer; Tappahannock, A. H. Bell; Suffolk, Major G. T. Lemmon; Lynchburg, Gill Magruder; Roanoke, W. H. McConnell. Each of these men will have charge of the road work in their respective districts.

$2,500,000 for New Orleans Paving in 1920.

New Orleans, La., October 18—[Special.]—New Orleans' paving bill for 1920 will amount approximately to $2,500,000.

To be exact, if the higher grade materials are used—Lake Trinidad asphalt on the principal residential streets, and chert on the minor residential streets—the cost, including sub-surface drainage, will be $2,531,389.14. Sub-surface drainage, regardless of the type of paving used, will cost $777,523. If the lower grades of material are used—bithulitic on residential streets, wood block on heavy-traffic, business streets, and gravel on minor residential streets—the cost will be $2,354,636.

About 40 streets or parts of streets are to be paved. The cost of the sub-surface drainage is paid principally by the city; the street-car companies pay for the paving between the tracks, and property owners pay for the balance.

Boats from Mobile to Cordova, Ala., Helped by Increased Water Depth.

Mobile, Ala., October 18—[Special.]—Capping of a dam at Lock 2 on the Tombigbee River with reinforced concrete blocks, which is called a permanent flashboard, was completed this week. This work insures an additional two feet of water from this lock to Lock 3, according to announcement of United States Engineers here.

As the dam to Lock 3 has already been capped, this means an additional two feet of water for a distance of 50 miles.

Present depth of the water is six feet. The additional two feet will be a great help to boats plying between Mobile and Cordova, Ala.

Eastern Kentucky Active in Highway Building.

Hazard, Ky., October 15—[Special.]—Eastern Kentucky highways are to be developed by counties according to plans made by The Eastern Kentucky Good Roads Association organized here a few days ago by good-roads enthusiasts and representative citizens.

Among the good-roads leaders present were: J. R. Johnson, Pineville, Ky.; T. B. Webster, Ashland; Judge J. B. Smith, Hindman; J. M. Baker, Hindman, Ky., and L. D. Lewis, Hyden, Ky. Plans were made for connecting Hazard with Hindman, Knott County; Whitesburg, Letcher County; Jackson, Breathitt County, as well as a through State highway from Hazard through Leslie and Clay Counties, via Hyden and London to Manchester, Clay County, 60 miles. Steps will be taken immediately looking to the construction of important highways connecting the several county seats—all growing towns in southeastern Kentucky. A number of coal operators and coal heads were present at the meeting.

Congressman John W. Langley of the Tenth District has already assured Federal aid and is working to that end, while State aid is assured.

Marietta Hosiery Knitting Mill.

Mill machinery costing $20,000, electric-steam power equipment costing $1500 and buildings costing $15,000 have been purchased for the plant of the Marietta (Ga.) Manufacturing Co., W. F. Hetrick of Gainesville, Ga., proprietor. The mill is two stories high, of brick, 100 feet long by 80 feet wide. It will have 44 knitting machines driven by belt for daily production 150 dozen pairs of hose.

Cedartown Cotton Mill Additions.

Contract has been awarded to A. V. Gude & Co. of Atlanta for additions to the No. 1 and 2 mills of the Cedartown (Ga.) Cotton & Export Co., including 240x75-foot mill-construction building. At each mill will be erected a 54x18-foot conditioning mill, with 50x24-foot breaker-house for No. 1 mill and 54x18-foot waste-house for No. 2. Fifteen cottages will be erected.

Charter for $400,000 Cotton Mill.

The Globe Cotton Mill, Mount Holly, N. C., has been chartered with a capitalization of $400,000 for building a cotton factory. Its incorporators are J. W. Holland of Mount Holly, John C. Rankin and S. M. Robinson of Lowell, N. C., and R. F. Craig of Stanley, N. C.

For Knitting Silk Hosiery.

Capitalized at $500,000 the Petersburg (Va.) Silk Hosiery Corporation has been chartered with the following officers: President, W. C. Faulkner; secretary, Thomas B. Gay; treasurer, E. R. Williams.

Textile Mill Notes.

Santee Mills, Orangeburg, S. C., will increase capitalization from $225,000 to $450,000.

Vance Cotton Mills, Salisbury, N. C., will increase authorized capital from $131,000 to $300,000.

H. A. Vestal and H. S. Moody, Athens, Tenn., have organized the Fashion Mill. They will erect a brick building and equip it for knitting silk hosiery.

A two-story 385x110-foot building and an equipment of 18,000 spindles has been decided for the Efird Manufacturing Co.'s additional mill, recently mentioned as contemplated at Albemarle, N. C.

Manchester Cotton Mills, Rock Hill, S. C., has engaged J. E. Sirrine, Greenville, S. C., as architect-engineer for plant extensions. These new buildings are as follows: 320x260-foot sawtooth skylight building, 180x100-foot dyehouse; individual electric drive for machinery.

Fort Mill (S. C.) Manufacturing Co. will build additions according to plans and specifications by J. E. Sirrine, architect-engineer, Greenville, S. C. These new buildings are as follows: 120x60-foot slasher-room, 114x80-foot dyehouse, 114x30-foot opener-room and waste building, all of mill construction and two stories high; individual electric drive for machinery.

Construction Department

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is $20.00 per year.

Airplane Plants, Stations, Etc.

Va., Alexandria—Airplanes.—Washington Air Transport Co. incptd.; $25,000; Howard Z. Bogert, Prest.

Va., Quantico—Flying Field.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; flying field; $200,000; Spec. 4059.

Bridges, Culverts and Viaducts.

Ala., Birmingham.—Jefferson County Board of Revenue; reinforced concrete bridge, 100 ft. long, on Birmingham and Warrior road (State Trunk Road No. 1); $14,560; F. M. Dobson, Contr., Montgomery, Ala.; S. R. Batson, County Engr., Birmingham. (Lately noted inviting bids.)

Ark., Osceola.—Commrs. Osceola and Little River Road Improvement Dist. No. 1; 12 steel bridges—six, 40; four, 65; one, 75 and one, 200-ft. span; bids opened Oct. 21; Pride & Fairley, Engrs., Osceola, Ark. (See Machinery Wanted—Bridge Construction.)

Ark., Perryville.—Perry County Commrs. Road Improvement Dist. No. 1. J. T. Chafin, Secy.; contract for steel bridges to R. L. Goster, Little Rock; culverts, Newport Culvert Co., Newport, Ky.; Parkes Engineering Co., Engr., Pine Bluff, Ark.

Fla., Miami.—Dade County Commrs.; bridges and roads; vote on $90,000 bonds.

Fla., Palm Beach.—Palm Beach County Commrs.; concrete bridge between Palm Beach and West Palm Beach; vote on $250,000 bonds.

Ga., Hartwell.—W. I. Hailey; toll bridge over Savannah River at Hailey's Ferry.

Md., Pocomoke City.—State Roads Comsn., 601 Garrett Bldg., Baltimore; 275-ft. concrete bridge over Pocomoke River, 24-ft. roadway; Somerset and Worcester counties, Contract S-11; Super-structure of a lift bascule span, double leaf over Pocomoke River, clear span between fenders 65 ft., roadway 24 ft.; bids until Nov. 5. (See Machinery Wanted—Bridge Construction.)

N. C. Lumberton.—Robeson County Supvrs., Geo. L. Thompson, Road Supvr.; 14 concrete bridges in Lumberton Township; $16,200; Porter & Boyd, Contrs., Charlotte, N. C.

Okla., Calvin.—State, M. L. Cunningham, State Engr., Oklahoma City; bridge across South Canadian River, 780 ft. 4 steel spans; $150,000; bids until Nov. 10; lately noted. (See Machinery Wanted—Bridge Construction.)

Okla., Chickasha.—Grady County Commrs., Chickasha, and Canadian County Commrs., El Reno, bridge over Canadian River; $80,000 available.

S. C., Anderson.—Anderson County Highway Comsn., W. C. Austin, Secy.; smaller bridges; P. S. Minus, Contr., Spartanburg, S. C.; will award contract for bridges over large streams to Luten Bridge Co., Asheville, N. C.

Tenn., Rutledge.—Tennessee State Highway Comsn., W. P. Moore, Ch. Engr., 327 7th Ave., Nashville; 10 concrete bridges over 20-ft. clear span, 300 drainage structures; 50 mi. Memphis to Bristol highway, Federal-Aid Project No. 14; bids until Nov. 7. (See Machinery Wanted—Bridge Construction.)

Va., Wise.—Wise County Supvrs.; 7 steel bridges; bids until Nov. 11; R. H. Bruce, County Engr., Norton, Va.; lately noted. (See Machinery Wanted—Bridge Construction.)

W. Va., Fairmont.—City; complete bridge across Monongahela River; 1300 ft. long, 3 arch spans, 250 ft. each; 24,000 cu. yds. concrete; $625,000; voted $175,000 bonds; $300,000 previous bond issue; $75,000 by county and $75,000 by Monongahela Valley Traction Co.; John F. Casey Co., Contr., Pittsburgh, Pa., represented by S. L. Fuller at Fairmont. (Lately noted to vote on $175,000 bonds.)

W. Va., Morgantown.—Monongalia County Commrs.; piers and abutments of curbstone for bridge across Cheat River at Ice's Ferry; two 200, one 150-ft. spans; $140,000; H. C. Gilmore Co., Contr.; Lawrence Cox, Engr.

Canning and Packing Plants.

Md., New Windsor.—B. F. Shriver Co., Westminster, Md.; rebuild canning factory; steel and brick; concrete and steel floor; slag roof; $60,000; electric power; J. F. Roystone Engineering Co., Archt.-Engr., Westminster.

Md., Silver Run.—A. W. Feezer; $50,000 power-house, canning factory, corn-storage building; steel, brick and concrete; concrete floor; slag roof; electric power; J. F. Roystone Engineering Co., Archt.-Engr.; Roystone-Craig Engineering Co., Contr., both Westminster, Md.

Mo., St. Louis.—American Packing Co., W. G. Mueller, Prest., 3842 Garfield Ave.; 3-story 30x80-ft. plant addition; C. F. May, Archt., Merchants' Laclede Bldg.; C. A. Welsch Construction Co., Gen. Contr., Central National Bank Bldg.

N. C., Southport.—Fisherman's Cold Storage, Ice, Packing & Canning Co. incptd.; $50,000; Jas. A. Arnold, Lorenzo Medin.

Clayworking Plants.

Ky., Torchlight.—Bricks.—Torchlight Brick Co. incptd.; $75,000; Edgar McClure, C. E. Stafford, Supt. Torchlight Coal Co.; mfre. building brick; contemplates mfre. fire brick.

Mo., Jefferson City.—Bricks.—Commercial Club; contemplates brick factory.

Coal Mines and Coke Ovens.

Ky., Louisville.—Sun Coal Co. incptd.; $100,000; J. W. McCulloch, P. R. Lancaster, C. F. Lowther.

Ky., Louisville.—Community Cannel Coal Mining Co. incptd.; $30,000; L. L. Ogden.

Va., Norfolk.—Mason County Coal & Oil Co. incptd.; $50,000; E. L. Beale, Prest.

W. Va., Barren Creek.—Barren Creek Colliery Co., 1108 Kanawha National Bank Bldg., Charleston, W. Va., organized; J. B. Hart, Prest.; R. S. Walters, Mgr.; develop 900 acres; daily output 250 tons. (Lately noted incptd., capital $200,000.)

W. Va., Boone and Logan Counties.—Boone County Coal Corp., W. M. Wiley, V.-P.-Gen. Mgr., care of Montgomery & Co., 14 Wall St., New York; increase capital by $3,000,000; 32,650 acres; 21 mining operations; annual capacity, 2,000,000 tons.

W. Va., Davy.—Atlantic Smokeless Coal Co. organized; George Wolfe, Prest.-Treas. and Mgr., Davy.; W. M. Black, Secy., Lynchburg, Va.; develop 2150 acres; install $150,000 machinery; bids open; daily output 500 tons. (Supersedes recent item.)

W. Va., Fairmont.—Desperd Fuel Co. incptd.; $100,000; Henry Shively; J. E. Watson, Jr.; George De Bolt.

W. Va., Huntington.—Phillips Mining Co. incptd.; $150,000; R. C. Phillips, B. L. Douglass, John Boman.

W. Va., Mohawk.—Mohawk Coal Co., L. E. Tiernay, Prest.; coal tipple and retarding conveyor; Link-Belt Co., Contr., Philadelphia.

W. Va., Moundsville.—Miami Coal & Coke Co. incptd.; $60,000; John E. Hamilton.

W. Va., Moundsville.—Mineral State Coal Co., Munsey Bldg., Baltimore, Md.; general improvements; install 400 H. P. hoister, electrical; contemplate daily output 2000 tons; Saml. T. Williams, Contracting Engr., 223 N. Calvert St., Baltimore, Md.

W. Va., Red Rock.—Mineral State Coal Co., Munsey Bldg., Baltimore, Md.; improve plant; additional generator unit and mining machines; Wm. H. Morris, Engr.; Saml. T. Williams, Contracting Engr., 223 N. Calvert St., Baltimore, Md.

W. Va., Welch.—Marine & Commerce Pochantas Corp. chartered; W. A. Howell, 32 Liberty St., New York.

Cotton Compresses and Gins.

Ga., Alston.—G. A. Sammons; rebuild $10,000 burned ginnery.

S. C., Fort Motte.—J. R. Fairey; rebuild $12,000 burned ginnery; two or three 70-saw gins complete. (See Machinery Wanted — Gins (Cotton); Engine.)

Tex., Dallas.—Procter & Gamble Co., Cincinnati, O.; $1,000,000 plant; 8 steel reinforced concrete and brick buildings; 50-acre site; building contract to Dwight P. Robinson & Co., New York. (Supersedes previous item.)

Tex., Huntsville.—Huntsville Cotton Oil Co.; increased from $40,000 to $100,000.

Tex., Sherman.—Oriole Mfg. Co. incptd.; $100,000; J. A. Underwood, W. F. Pendleton, R. F. Heflin, Jr.

Cottonseed-Oil Mills.

Ga., Louisville.—Louisville Oil Mill Co., J. M. Strother, Prest.-Mgr.; rebuild burned 50x150-ft. seed storage-house.

Drainage Systems.

Ark., Monette.—Craighead County Commrs.' Drainage Dist. No. 18; 36 mi. open ditches; 777,000 cu. yds.; bids until Oct. 24; Pride & Fairley, Engrs., Osceola, Ark. (See Machinery Wanted—Ditches.)

Ark., Pine Bluff.—Jefferson County Dist. No. 7; complete lateral ditches; Fred Rucker, Contr.

Tenn., Henderson. — Chester and McNairy County Commrs., Sweetlips Creek Drainage Dist. No. 8; remove 68,255 cu. yds. dirt, clear 60-ft. right of way; ditch Sections 1 and 2; 2400 yds.; right of way, 49.5 acres; bids until Oct. 27; U. N. Bullman, Secy.-Treas., F. R. D. No. 2, Finger, Tenn. (See Machinery Wanted —Ditch.)

Electric Plants.

Ark., Ozark.—Commonwealth Service & Supply Co.; transmission lines to Charleston Branch, Ratcliff; supply electricity.

Fla., New Port Richey.—Richey Construction Co., Clyde F. Burns, Mgr.; $10,000 plant; 50 H. P. engine, 30 K. W., 2300-volt alternator, transmission line to Port Richey and Elfers. (See Machinery Wanted—Boiler.)

Ga., Atlanta.—Aldine Chambers; electric generating station using steam at city crematory; contemplated.

Ga., Cochran.—City; light and water systems improvements; voted $15,000 bonds; H. D. Sturdivent, Engr.

Ky., Marion. — T. H. Cochran; organize company; electric and ice plant.

Ky., Maysville.—Maysville Power Co.; increase power-plant equipment; 750 K. W. steam turbo-generator with exciter; J. E. Sirrine, Engr.-Archt., Greenville, S. C.

La., Lafayette.—L. Wagner; electric-light and water plant for dwelling and barn. (See Machinery Wanted—Electric Plant.)

Miss., Greenville.—Riverside Transmission Co. incptd.; $7000; R. B. Claggett.

Miss., Quitman.—City; electric lights; water-works; steam heat; fire escapes, etc.; vote on $35,000 bonds. Address The Mayor.

Miss., Starkville.—City; electric light, water and sewer system; voted $55,000 bonds. Address The Mayor. (Lately noted to vote.)

Mo., Independence. — City, Christian Ott, Mayor; electric-light plant addition; engine, generator and condenser, $40,940; contracts awarded.

N. C., Wadesboro.—City; extend and improve light system. Address The Mayor.

Okla., Hobart.—City; electric light plant; $135,000 bonds recommended; V. V. Long & Co., Consit. Engr., 1300 Colcord Bldg., Oklahoma City.

S. C., Gaffney.—City; contemplates light and water system extension. Address The Mayor.

S. C., Laurens.—City; light, water and sewer systems improvements; vote on $100,000 bonds. Address The Mayor. (Lately noted contemplated.)

Tex., Houston.—Houston, Richmond & San Antonio Traction Co.; power station for transmission line.

Fertilizer Factories.

Ala., Troy.—Niley Fertilizer Co.; rebuild $60,000 burned plant.

Fla., Oakhurst.—J. F. Meffort Co., C. C. Frazier, Mgr.; rebuild burned limekiln.

La., New Orleans.—United Chemical Organic Products Co., H. L. Bryant, Mgr.; rebuild $500,000 burned acid plants and warehouse.

Flour, Feed and Meal Mills.

Md., Spielmans Station.—Jacob M. Middlekauff; rebuild $35,000 burned mill.

Mo., St. Joseph.—St. Joseph Public Elevator Co. incptd.; $200,000; A. B. Swift, C. H. Mayer, F. L. Ford, Frank A. Boder, R. E. Hastings.

N. C., Sanford.—Sanford Milling Co. incptd; $100,000; C. H. Teague, J. W. Byerly.

S. C., Columbia.—Pacific Mills Co.; $66,000 building.

S. C., Walterboro.—Colleton Products Assn. organized; $100,000; E. T. H. Shaffer; grain elevator, market, chain of potato-storage houses.

Tenn., Memphis.—International Rice Mills, 3 Nettleton Ave.; rebuild burned grain elevator.

Va., Bristol.—Service Mill Co., Box 492, organized; J. A. Goodpasture, Prest.; Chas. J. Todd, Secy.-Treas. and Mgr.; 2-story 50x160-ft. concrete building; dairy feed; S. T. Copenhaver, Contr.

W. Va., Shepherdstown.—C. N. Whiting Milling Co.; rebuild $150,000 burned plant.

Foundry and Machine Plants.

D. C., Washington—Proof Shop.—Navy Department, Bureau Yards and Docks; proof shop; $250,000; specification 4054; plans drawn.

Ky., Covington—Machine Tools.—Williard Manufacturing Co., care G. F. Mattman, 3d and Madison Aves.; 1-story 63x160-ft. building; Frank G. Hehman, Contr., 1620 Helman St.; C. C. & E. A. Weber, Archts., Miller Bldg., Cincinnati, O.

Md., Baltimore — Files. — Standard File & Rasp Co., Drovers and Mechanics' Bank Bldg., incptd.; $150,000; W. J. Barrett, Edward Roseman, E. R. Lipman.

Miss., Clarksdale — Machinery Supplies. — Claksdale Machinery & Supply Mfg. Co., J. H. Hooks; 4-story building; 46x22-ft. site; proposed.

Mo., St. Louis — Stoves, etc. — Bridge & Beach Manufacturing Co., 2d and Valentine Sts.; 2-story brick factory; Klipstein & Rathman, Archt., 1501 Chemical Bldg.; Fruin Colnon Construction Co. lowest bidder.

Mo., St. Louis — Indexograph. — Liberty System Corp., 23d and Locust Sts.; 2-story 65x450-ft. building; concrete and glass construction; mfre. indexograph.

Mo., St. Louis—Soot Blowers.—Bayer Soot Blower Co., L. J. Bayer, Prest., 2828 La Salle St.; 1-story 100x100-ft. machine shop; composition roof; $30,000; J. P. Wuest, Archt., 3730 Hebert St.; Joe J. J. Kjar, Contr., Wainwright Bldg. (Lately noted to erect.)

N. C., Charlotte — Cotton-mill Machinery. — Alexander & Garsed; 2-story building; brick and galvanized tin; $8000; E. H. Clement & Co., Contrs.

Tenn., Knoxville—Machinery. — Dixie Machinery Co. incptd.; $10,000; E. W. Gillespie.

Tex., Dallas—Pumping Machinery, etc.—Limacon Pump & Motor Co., Arthur L. Ayres, Mgr., 207 Gaston Bldg., lately noted to erect plant; first unit, 75x100-ft. fireproof building; install boring mills, machine shop equipment, baking ovens, punch presses, circular shears, tool-making machinery, bench tools, etc.; $20,000; bids open; C. C. Carson, Const. Engr., 207 Gaston Bldg. (See Machinery Wanted—Foundry Equipment.)

Tex., Fort Worth—Electrical Equipment.—Ballard-Martin Electric Co.; $100,000 factory.

W. Va., Huntington — Mine Supplies.—Huntington Specialty Co. incptd.; $25,000; T. J. Noonan.

W. Va., Welch — Electrical Machinery.—Welch Armature Co.; 3-story-and-basement building; 63x63 ft.; John Doss, Archt.

Gas and Oil Enterprises.

Ark., Paragould.—Greene County Oil & Gas Development Co. organized; G. T. Hopkins, Prest.; Porter Cathey, Treas.; 15,000-acre lease in Greene County.

Ga., Valdosta.—Valdosta Gas Co.: gas plant improvements; extension mains; $40,000 bonds.

Ky., Benton.—Marshall County Oil Co. incorporated; $60,000; J. F. Hartley, J. D. Hall.

Ky., Bowling Green.—Atlantic Producing & Refining Co.; refinery.

Ky., Bowling Green — Refinery. — Atlanta Producing & Refining Co., Neale Bldg. (lately noted incptd, $1,500,000) organized; W. S. Williams, Prest.; A. A. G. Scherbel, V.-P.; Chas. C. Hoag, Secy.-Treas.; increase daily capacity from 1500 to 2000 bbls. oil; lubricating and wax plant addition; W. G. Williams, Engr., Oklahoma City. (Supersedes previous item.)

Ky., Lexington.—Regal Oil & Development Co. incptd.; $1,000,000; C. W. Jelf, R. D. McCollum, S. R. Griffith.

Ky., Owenton.—Owenton Oil Co. incptd.; $50,000; F. L. Satterwhite, W. T. Forsee.

Ky., Scottsville—Nitro-glycerine.— Kentucky Glycerine Co.; nitro-glycerine plant.

Ky., Scottsville.—Kentucky Whip Oil Co. incorporated; $100,000; A. J. Peterson, L. J. Pitts.

Ky., Scottsville.—Von Oil Co. incptd.; $30,000; Albert von Hoffman.

Ky., Scottsville.—Roark Oil Co. incptd.; $450,000; A. N. Morton, P. R. Sinnamon, C. G. Miller.

La., Shreveport.—W-K Oil Co. organized; $55,000; H. S. Lonergan, Prest.; Sam Willer, V.-P.

La., Shreveport—Refinery.—Rogers Refining Co. incptd.; $1,000,000; E. C. Williams, J. M. and H. M. Rogers, E. N. Canada.

Okla., Lawton.—Red River Drilling Co. incptd.; $80,000; Allen Fields, D. E. Andrews.

Okla., Muskogee.—Story Oil & Gas Co. incptd.; $100,000; E. H. Dewel, Edgar John.

Okla., Okmulgee.—Clarke Oil Co. incptd.; $100,000; J. S. Clarke, C. Ochenrider.

Okla., Pawhuska.—Central State Oil & Gas Co. incptd.; $500,000; Chas. B. and Jessie M. Peters, Chas. Holden.

Okla., Tulsa.—Goodrich Oil Co. incptd.; $100,000; Robert D. Goodrich, John M. Lovejoy.

Okla., Tulsa. — Warlock Oil Co. incptd.; $100,000; Giles A. Penick, D. C. Turner, W. F. McDermott.

Okla,, Tulsa.—Maximo Oil Corp. chartered; $100,000; Jno. J. Relsh, Nat Wissman.

Okla., Tulsa.—Kilgoure Oil Co. incptd.; $25,000; F. M. Martin.

Okla., Tulsa.—Rockwyn Oil & Gas Co. incptd.; $100,000; H. Lowerre, Jr.; E. R. Jones, Muskogee, Okla.

Okla., Tulsa. — Keyhoma Petroleum Corp. chartered; $500,000; F. R. Hansell, J. Vernon Pimm, both Philadelphia, Pa.

S. C., Bennettsville.—Marlboro Oil Development Co. incptd.; $125,000; N. W. Edens, Bennettsville; C. M. Jackson, Clio, S. C.

Tenn., Memphis—Refinery.—Seven States Oil Co. organized; W. C. Myers, Prest., 1510-11 Bank of Commerce Bldg.; $175,000 refinery; crude oil from Louisiana, Texas and Kentucky oil fields; daily capacity 2000 bbls.; refine into gasoline, naphtha, auto oil, etc.

Tex., Austin.—Jim Barnes [illegible] Co. incptd.; $250,000; J. W. Barnes, M. W. Hyshew, T. P. Shipp.

Tex., Bay City.—Texas-Dayton Oil Co. incorporated; $18,000; M. Thompson.

Tex., Bridgeport—Refineries.—Tex State Refining Co. organized; $500,000; W. H. Summers, Prest.; J. J. Schuster, Constr. Mgr., Fort Worth; three 1000-bbl. refining plants.

Tex., Burkburnett.—Manhattan-Texas Development Corp. chartered; L. B. Phillips, I. J. Baynes, both Dover, Del.

Tex., Dallas—Refinery.—Superior Producing & Refining Co., Wheeling, W. Va., incptd.; $5,000,000; D. H. Courtney, Prest., Morgantown, W. Va.; W. C. Handlan, V.-P., Atlantic City, N. J.; Z. F. Robertson, Secy.-Treas., Wheeling, W. Va.

Tex., Dallas.—(Gasoline).—Triangle Co., 502 Interurban Bldg. (lately noted incptd., $600)) organized; J. E. Couch, Prest.-Mgr.; E. T. Paxton, Treas.; gasoline and oils. (See Machinery Wanted—Tanks.)

Tex., Dallas.—Southern Producing Co. incorporated; $60,000; J. A. Underwood, G. W. Butler.

Tex., Fort Worth—Refinery.—Invader Oil Co., State Bank Bldg.; $200,000 refinery; daily capacity 500 to 1000 bbls.

Tex., Fort Worth—Refinery.—Texas-Arizona Petroleum Co.; 4000-bbl. oil refinery; 52½-acre site.

Tex., Fort Worth.—Jim Barnes Oil Co. incorporated; $250,000; J. W. Barnes, M. W. Pysher, T. H. Shipp.

Tex., Fort Worth.—Orient Petroleum Co. incorporated; $30,000; E. L. Lockhart.

Tex., Harrisburg—Refinery.—Palmer Hughes; oil refinery; daily capacity 100 bbls.

Tex., Houston—Refinery.—Walker Oil & Refining Co. incptd.; $100,000; Howard Walker and G. C. Campbell.

Tex., Taylor.—Wolly Hill Oil & Gas Co. incptd.; $50,000; Fritz Fuchs.

Tex., Toyah.—Toyah Basin Oil & Gas Co. incptd.; $200,000; C. C. Middleton, W. H. Sutliff, E. W. Clark, all Cleveland, O.

Tex., Wichita Falls.—Burk-Lawton Pipe Line Co. (W. E. Curry); main office, Wichita Falls; branch, Lawton, Okla.; 38½ mi. pipe lines; 8 mi. gathering lines; 4-in. piping; daily capacity 7000 bbls. (Lately noted incptd., $500,000.)

Va., Norfolk.—Mason County Coal & Oil Co. incptd.; $50,000; E. L. Beale, Prest., Franklin, Va.

Va., Ocean View.—Ocean View Gas Co., E. A. Page, representative; gas plant.

W. Va., Charleston.—Ripley Gas & Oil Co. incptd.; $25,000; W. E. Mathes.

Hydro-Electric Plants.

Ga., Spring Creek.—Bainbridge Power Co. organized; $100,000; J. M. Simmons, Prest.; D. T. Sutherland, V.-P.; E. J. Perry, Secy.-Treas.; all Bainbridge, Ga.; dam and powerhouse, cost $75,000 to $90,000; mchy. and transmission system, cost $50,000 to $65,000; will soon invite construction and mchy. bids; B. M. Hall & Sons, Engrs.-Archts., Peters Bldg., Atlanta, Ga.

Mo., Greer Spring.—Missouri Iron & Steel Corp., St. Louis; electric generating station; C. E. Smith & Co., Consit. Engrs., 2065 Ry. Exch. Bldg., St. Louis, write to Manufacturers Record: As future development will build hydro-electric plant at Greer Spring; surveyors now assembling hydraulic, topographic and geologic information from which development will be designed; probably use company's own forces, supervised by C. E. Smith & Co. (Lately reported under Koshkonong, furnishing electric light and power for iron furnace at Haigart, 25 mi. distant.)

S. C., Columbia.—Columbia Ry., Gas & Electric Co. proposes completion Columbia Canal; Edwin W. Robertson, Prest., advises Manufacturers Record: Our offer to Columbia Canal Comsn, not yet accepted and, therefore, no definite plans formed.

Ice and Cold-Storage Plants.

Ark., Little Rock.—People's Ice & Fuel Co. incptd.; $50,000; J. G. Taylor.

Fla., Bonifay. — Kenneth Caskill; cold-storage plant; 100,000 lbs. capacity.

Fla., Miami.—C. J. Martin; $100,000 warehouse to include cold-storage.

Fla., Miami.—Miami Beach Electric Co.; 10 distilled water ice-making plant; Triumph Ice Machine Co., Contr., Cincinnati, O.

Fla., New Port Richey.—Richey Construction Co., Clyde F. Burns, Mgr.; ice and electric-light plant; live-steam absorption system; purchased; daily capacity 10 tons.

Ga., Atlanta.—Atlantic Ice & Coal Corp., 15 Collins St., advises Manufacturers Record: Morgan & Dillon, Atlanta, are contractors for Atlanta improvements; Foundation Co., New York, contractor for betterments at Americus, Athens, Macon and Rome, Ga., and Montgomery, Ala., with C. Spiker, Atlanta, as Consit. Eng. (Supplements recent items of these plant additions.)

Ga., Macon.—Macon Packing Co.; refrigeration plant.

Ga., Savannah.—G. H. Dixon, Jacksonville, Ga.; ice plant.

Ga., Sparta.—Sparta Products Co. organized; L. C. Miller, V.-P.; 10-ton ice plant.

Ky., Marion. — T. H. Cochran; organize company; ice plant.

Ky., Mount Sterling.—Swift & Co., office Chicago; cold-storage plant; reported.

Ky., Lexington.—Swift & Co.; main office Chicago; purchased plant; plans additions.

Ky., Winchester.—Kentucky Utilities Co., W. P. Hackett, Mgr.-Const. Engr.; ice plant; daily capacity 70 tons; York Machine Co., Contr., York, Pa.

La., New Orleans.—S. W. Stafford, Supt. Charity Hospital; install refrigerator plant; mortuary cooler.

La., Shreveport.—Independent Ice & Cold Storage Co.; 5000-ton capacity ice-storage plant; G. E. Wells, Archt. St. Louis, Mo.

Md., Baltimore.—Service Terminal Co., 409 N. Holliday St.; cold-storage plant; purchased buildings; has 500,000 sq. ft. floor space; plans increase to 2,000,000 sq. ft.

Miss., Charleston.—W. A. Johnson, Grenada, Miss.; 30-ton ice plant.

Miss., Meridian.—Meridian Ice Factory; $12,000 addition.

Mo., Adrian.—W. H. Long; ice plant.

Mo., Brymer.—W. S. Hewitt; ice and storage plant.

Mo., Cameron.—C. S. Kemper; cold-storage warehouse; improve ice plant.

Mo., Lake Dutcher.—Esteppe & Hulen; Centralia, Mo.; enlarge icehouse; contemplated.

Mo., Cameron.—Cameron Artificial Ice Co.; ice-storage plant; capacity 1500 tons.

Mo., Malden.—Malden Ice Mfg. Co.; 12-ton capacity ice machine.

N. C., Kinston.—Lenoir Oil & Ice Co.; F. C. Dunn, Prest.-Mgr.; 50x163-ft. brick building; $12,000; install $50,000 ice-making equipment; Blalock & Bros., Contrs.

N. C., Raleigh.—State Packing Co.; $100,000 packing plant.

N. C., Warsaw.—Warsaw Ice & Laundry Co. incptd.; $50,000; H. L. Stevens.

Okla., Enid.—Enid Ice & Fuel Co.; increase daily capacity to 100 tons; erect ice-storage plant.

Okla., Enid.—Arctic Ice Co., J. M. Hussey, Prest.; increase ice-storage capacity to 2000 tons.

Okla., Madill.—Commercial Club; ice plant; probably organize company.

Mo., Rolla.—G. E. Joslin, Grassville, Mo.; ice plant and creamery; contemplated.

Okla., Tonkawa.—M. Schonwald; ice plant; remodel building.

S. C., Dillon.—Wood Grocery Co.; 2-ton raw-water ice plant.

S. C., Rock Hill.—Mt. Gallant Dairy Farm, 111 Main St, (lately noted to install machinery for ice mfre.), has building; machinery purchased excepting cork; insulating cork for cold storage-house and tank, scales, deep-well pump and motor, one or two 2-ton trucks, 4 or 6 ice wagons; daily capacity 20 tons. (See Machinery Wanted—Cork; Scales, etc.; Pump; Motor; Trucks; Wagons.)

S. C., Sumter.—Sumter Ice & Fuel Co., lately noted incptd., capital $100,000; E. H. Moses; 40x180-ft. fireproof building; bids open; install $60,000 ice machinery; purchased; daily capacity 50 tons distilled water ice.

Tenn., Centerville.—Nixon Huddleston and Henry O'Conner; ice plant.

Tenn., Union City.—Beck-Cobb Ice Co.; has building; remodel for ice factory.

Tex., Alma.—R. L. Clayton; establish ice plant; contemplated.

Tex., Ft. Worth.—Ballard Martin Electric Ice Co., North and Adams St.; J. J. Ballard, Prest.-Gen. Mgr.; $20,000 building; brick and steel construction; tar and gravel roofing; install $70,000 machinery; daily output 70 tons; Arctic Ice Machine Co., Archt., Canton, O.; C. T. Hodges, Contr. (Lately noted to erect.)

Tex., Fort Worth.—Crystal Ice Co., 301 E. Magnolia St., Web Maddox, Mgr.; 40x50x50 ft. fireproof building; install 6-ton refrigerating machine, hoist, etc.; purchased; daily capacity 100 tons; N. A. Lindvall, Archt., Great Southern Bldg.; Butcher, Sweeney & Friedman, Contrs. (Lately noted to erect.)

Tex., Houston.—Houston Ice and Brewing Assn., Washington Ave.; $15,000 plant addition; James Autill, Contr.

Tex., Longview. — Panhandle Produce Co.; cold-storage plant.

Tex., Mineral Wells.—Mineral Wells Electric Co.; ice plant addition; double capacity; contract let.

Tex., Morristown.—Morristown Ice Co.; enlargeplant.

Tex., Nixon.—A. W. Norton, Box 534; ice plant and cold storage.

Tex., McKinney.—T. E. Craig; ice plant additions.

Tex., Van Alstyne.—Van Alystyne Ice Co.; plant improvements.

Tex., Wichita Falls.—People's Ice Co.; 35-ton ice plant; ice-storage warehouse, 2500-ton capacity; $125,000; Geo. E. Wells, Archt., St. Louis, Mo. (Lately noted.)

Va., Chilhowie.—G. A. Eller; ice factory and creamery.

Va., Norfolk.—Ice, Cold Storage & Freezing Corp. chartered; $1,000,000; J. C. Prince, Prest.; S. S. Keeling, V.-P.; Thomas J. Hogan, Secy.; J. W. Easter, Treas.; plant; purchased site.

Va., Portsmouth.—Freedman Packing Co.; 2-story cold-storage warehouse.

W. Va., McMechen.—McMechen Ice Co. organized; C. H. Wilson; capital, $75,000 to $100,000; ice plant; 150x135-ft. site; machinery purchased.

Irrigation Systems.

Tex., Anahuac.—W. C. Tyrrell, Beaumont, Tex.; purchased Anahuac rice canal; capacity 15,000 acres; plans to provide fresh water for additional acreage.

Land Developments.

Ala., Cordova.—Indian Head Mills; village development; E. S. Draper, Archt., Charlotte, N. C., and New York.

Fla., Apalachicola.—St. George Co-operative Colony (lately noted incptd., $100,000) organized; J. J. Abbott ,Prest.-Gen. Mgr.; Chas. N. Hampton, Secy.; W. H. Collier, Treas.; 10,000-acre site on St. George's Island; factories, plants, machinery; $50,000.

La., Lafayette.—City, Robert Mouton, Mayor; park and street improvements; drainage system; extend water mains; additional wells; voted $425,000 bonds.

N. C., Roanoke Rapids.—Rosemary Mfg. Co.; park developments and improvements in Rosemary village; E. S. Draper, Archt., Charlotte, N. C., and New York.

S. C., Rock Hill.—Wyomojo Cotton Mills; relocate mill village; develop park, etc.; A. S. Draper, Archt., Charlotte, N. C., and New York.

S. C., Rock Hill.—J. M. Cherry; park improvements; E. S. Draper, Archt., Charlotte, N. C., and New York.

S. C., Ware Shoals.—Ware Shoals Mfg. Co.; improve village; develop civic center; E. S. Draper, Archt., Charlotte, N. C., and New York.

S. C., Whitmire.—Glenn-Lowry Mfg. Co.; village improvements; E. S. Draper, Archt., Charlotte, N. C., and New York.

Va., Odd.—Poquoson Cemetery Co. incptd.; $1000; J. S. Phillips, Prest., Hampton, Va.

Lumber Manufacturing.

Ala., Cherokee.—Frazier & Self; purchased 10,000-acre tract; establish mill; machinery purchased.

Ark., Helena.—J. W. Denison; lumber mill; contemplated.

Ark., Little Rock.—Pritchard Lumber Co. incptd.; $100,000; F. Neimeyer, Prest.; H. C. Kolbe, Secy.

Fla., Freeport.—Geneva Milling Co., J. R. McLane, Prest., Pensacola, Fla.; improve plant; install machinery; purchased; increase daily capacity from 30,000 to 80,000 ft.

Ga., Plains.—Johnson-Sherling Lumber Co.; 6 sawmills; planing mill.

Tex., Eastland.—Elliott Lumber Co. incptd.; $50,000; F. W. Elliott.

Tex., Kyle.—Wallace Bros. Lumber Co.; increase from $55,000 to $80,000.

Va., Alexandria.—Alexandria Lumber Co. incptd.; $35,000; Fred L. Glaze, Prest.; Winchester, Va.

Va., Lynchburg.—Dolan Lumber Co. incptd.; $50,000; R. S. Burruss, Prest.

W. Va., Buery.—Steinbeck Lumber Co.; sawmill; 2000-acre tract.

W. Va., Terra Alta.—Garner-Hedges Lumber Co. incptd.; $10,000; H. E. Hedges; saw and planing mill.

Metal-Working Plants.

Md., Baltimore—Wire Wheels.—National Wire Wheel Works, 625 Equitable Bldg., incptd.; Eli Frank, Bernard R. Youngman.

N. C., High Point—Bed Springs.—Bar Spring Co. incptd.; $125,000; John H. Welborn, Wm. H. English.

Tex., Ralls—Sheet Metal.—Continental Stamping & Manufacturing Co.; sheet metal plant; first unit, $75,000; 2 proposed additional units, $50,000 each.

W. Va., Huntington—Mouldings, Cornices, etc.—Art Decoration & Mantel Co., A. Holt; brick building and metal factory; mfre. mantels, mouldings, cornices, etc.

Mining.

Ala., Florence—Limestone Crusher.—J. J. Douglass; organize company; limestone crusher.

Mo., Smithton—Zinc.—Wm. E. Cook; develop zinc ore.

Okla., Miami—Lead and Zinc.—Victory Metals Co. organized; $5,000,000; Sam Davidson, Prest.; W. M. Babcock, V.-P.; James Harrison, Secy.; all Fort Worth, Tex.; Walter H. Logan, Treas.-Gen. Mgr., Miami.

Va., Richmond—Slate.—Arvonia-Buckingham State Co., James T. Sloan, Prest.; increased from $15,000 to $50,000.

Miscellaneous Construction.

Ky., Louisville—Mausoleum.—Louisville Mausoleum & Crematory Co., S. H. Bow, Mgr., 403 Crutcher & Starks Bldg.; increased from $10,000 to $25,000; erect $150,000 mausoleum and crematory in Evergreen Cemetery; bids open. (See Machinery Wanted—Building Material.)

La., New Orleans—Canal.—U. S. Engr. Office, Custom-house; dredging canal between Mermentau and Calcasieu River, La.; olds until Oct. 22.

Miss., Pascagoula—Wharf, etc.—City, F. H. Lewis, Mayor (lately noted $75,000 bonds); construct 1000-ft. wharf; lay 3000 ft. rails $75,000; bids soon open; W. H. Wallis, Engr. (See Machinery Wanted—Wharf.)

Mo., Kansas City—Iron Fence.—City Fire and Water Board; approved plans for 1700 ft ornamental iron fence around 16,000,000-gal. reservoir; $5000.

N. C., Fayetteville—Wharves.—City; construct wharves on Cape Fear River; vote $75,000 bonds. Address The Mayor.

Okla., Stillwater—Archway.—Oklahoma Agricultural and Mechanical College; $10,000 archway entrance to athletic grounds.

Tenn., Memphis—River Terminals.—City; $175,000 improvements to Georgia Ave. terminals; construct incline; resurface floors of warehouses; build truckways; enlarge trucking facilities to handle 32 freight cars; install tractor systems on inclines to handle barges; improve to increase daily capacity from 100 to 2000 tons; Walter F. Schultz, Consit. Engr.

Tenn., Memphis—Levee and Revetment.—River Comsn., Gen. Joseph N. Hodges, Chief Engr.; levee and revetment work in first and second Mississippi River Dists.; $1,845,000.

Tex., Waco—Cemetery.—Park Lawn Cemetery; increase from $40,000 to $60,000.

Va., Lexington—Archway.—Washington and Lee Alumni Assn.; E. L. Graham, Chrmn. Soldiers' Memorial Executive Committee; $15,000 archway.

Miscellaneous Enterprises.

Ala., Birmingham—Dry Cleaning.—P. W. Brower, 24th and F Ave.; 1-story 40x120-ft. building; brick and wood construction; tar and gravel roofing; concrete floor; $15,000; P. H. Mewhinney, Archt.; Evans Bros. Constr. Co., Contr.

Ark., Decatur—Evaportor.—H. L. Cotton & Sons; rebuild burned plant.

D. C., Anacostia—Laboratory.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; radio laboratory.

D. C., Washington—Printing.—Shaw Bros., Bond Bldg.; 3-story and basement printing-office building; 14x96 ft.; brick, concrete and metal; bids opened.

Fla., Miami—Mineral Water.—Crystal Spring Water Co., 312 1st St. (lately noted incptd., capital $15,000), organized; George R. Kline, Prest.; install 8000-gal. capacity glass or enamel-lined storage tank, bottle-washing and filling machine. (See Machinery Wanted—Tank; Bottling Machine.)

Ga., Sparta—Potato Curing.—Sparta Products Co. organized; L. C. Miller, V.-P.; 10,000-bu. capacity potato-curing and storage house; 10-ton ice plant.

Ky., Ashland—Laundry.—Woo Dick; erect building.

Ky., Louisville—Laboratories.—X-Ray Laboratories incptd.; $5000; L. H. Kerr.

La., Amite—Potatoe Drykiln.—Amite Produce Co., I. G. Prichard, Mgr.; sweet potato drykiln No. 1; $15,000; capacity 20,000 bu.

La., Monroe—Construction.—R. A. Smith Co. (lately noted incptd., capital $5000) organized; R. A. Smith, Prest.-Mgr. (See Machinery Wanted—Electrical Equipment; Contractors' Machinery.)

Md., Baltimore—Machinery.—Machinery Clearing House, Vickers Bldg., incptd.; John M. Kenny.

Miss., Quitman—Fire Escapes.—City; fire escapes, heating plant, water-works, electric lights; issue $35,000 bonds. Address The Mayor.

La., Rayne—Potato Drykilns.—Sweet Potato Dry Kiln Co. organized; $20,000; Edmond Wile & Bro., Mgrs.; sweet potato drykilns. (See Machinery Wanted—Drykiln.)

Md., Baltimore—Steamship Line.—States Marine Co., Munsey Bldg., organized; $100,000; C. A. Askew, Gen. Mgr.

Mo., St. Louis—Printing.—Von Hoffman Press, Albert Von Hoffman, Prest.; 7-story concrete and steel building; 127x127 ft.; $350,000; E. Preisler, Archt., Title Guaranty Bldg.

N. C., Ayden—Printing.—Andrews-Hooks Printing Co. incptd.; $10,000; J. C. Andrews.

N. C., Charlotte—Laundry.—Mrs. R. L. O'Hara; rebuild laundry.

N. C., Charlotte—Electrical Fixtures.—F. E. Robinson & Co. incptd.; $50,000; F. E. Robinson, S. W. Dandridge.

N. C., Cerro Gordo—Livestock.—Williamson Stock Farm Co. incptd.; $50,000; J. C. Williamson.

N. C., Warsaw—Laundry.—Warsaw Ice & Laundry Co. incptd.; $50,000; H. L. Stevens.

S. C., Easley—Laundry.—Easley Cotton Mills; 55x124-ft. community laundry building; concrete; mill construction; electric driven; J. E. Sirrine, Archt.-Engr., Greenville, S. C.

S. C., Heath Springs—Hardware.—Springs Distributing Co. organized; $100,000; Leroy Springs, Prest.; Robt. B. Mackey, V.-P.; Boyd B. Horton, Secy.-Treas.; Ed F. Hammond, Mgr.; hardware, etc. (See Machinery Wanted—Fruit Growers; Canners; Cheese Makers; Manufactured Products.)

S. C., Kingstree—Builders' Supplies.—Builders' Supply Co. incptd.; $12,500; Homer Clark.

S. C., Shandon—Dry Cleaning.—Southern Dry Cleaning Co. will occupy 1-story 35x80-ft. building.)

S. C., Walterboro—Potato Storage.—Colleton Products Assn. organized; $100,000; E. T. H. Shaffer; chain of potato storage-houses, grain elevator, market.

Tenn., Bristol—Laundry.—Troy Laundry Co., John J. Jelks, Prest.; addition; concrete block construction; install machinery; $4000;

purchased: Harlow & Whitlock, Contrs. (Lately noted.)

Tenn., Chattanooga—Bottling.—Whistle Bottling Co. incptd.; $30,000; H. L. Corey.

Tex., Nacogdoches—Plumbing Supplies.—Smith-Hunt Plumbing & Supply Co. incptd.; $5000; J. C. Smith.

Va., Danville—Baggage Transfer.—Burton Baggage Transfer Co. incptd.; $50,000; W. W. Lynn, Prest.

Va., Basic City — Publishing. — National Newspaper Home Co. incptd.; $25,000; Claude P. Steen, Prest.

Va., Hampton—Electrical Appliances.—Abernathy Corp. chartered; $15,000; Al Lewis, Prest.

Va., Newport News—Stevedoring.—Tidewater Stevedoring Co. incptd.; $50,000; Patrick Dunn, Prest.

Va., Williamsburg — Dairy. — Williamsburg Dairies incptd.; $12,000; W. O. Strong, Prest.-Mgr.; has building and equipment.

W. Va., Bayard — Hardware, etc. — Bayard Hardware & Furniture Co. incptd.; $10,000; J. A. Kimble.

Miscellaneous Factories.

Ala., Mobile—Peanuts, etc.—Mobile Peanut & Candy Co. incptd.; $2100; L. F. Hill.

Ala., Montgomery — Chemicals. — Nezno Chemical Co. incptd.; $50,000; R. A. Seibels, E. T. Hale.

Ala., Selma—Drugs.—Cawthon-Coleman Drug Co., Broad St.; 3-story 24x124-ft. mill-construction building; 222,000 cu. ft. floor space; $50,000; automatic sprinkler system.

Ark., Gentry — Creamery. — L. T. Barnum; contemplates creamery.

Ark., Little Rock—Overalls, etc.—Miller Mfg. Co., J. D. Zook, Secy.-Treas., Gen. Mgr., 114 E. Markham St.; 3-story brick building, $75,000.

Ark., Pine Bluff—Battery, etc.—Dixie Battery & Mfg. Co., Byron C. Fowles, Prest.; increased $25,000 to $100,000.

Ark., St. Joe—Tablets.—St. Joseph Tablet Co., 11th St. and Mitchell Ave.; 6-story 140x220-ft. plant addition; Frank Buis, Contr.

D. C., Washington — Elastic Wheels. — Sergeant Elastic Wheel Co. incptd.; $1,000,000; F. A. Ostman, Jas. C. Kraft, Harry K. Hickey.

D. C., Washington—Bakery.—P. M. Dorsch, 631 S St. N. W.; 3-story addition; A. B. Mullett & Co., Archt., Union Trust Bldg.; Jas. L. Parsons, Contr., Southern Bldg.

Fla., Miami——Cane Sugar.—United States Cane Sugar Corp. chartered; $10,000,000; J. F. Jaudon, Mgr.; grow sugar-cane and mfre. sugar; Mgr. Jaudon wires Manufacturers Record: Corporation takes over Chevalier tract; first erect tandem mill, 24-hr. capacity 2500 tons; cost $1,500,000; expect to begin grinding 1922; planting 1000 to 2000 acres seedlings this winter; also completing Tamiami Trail through tract and railway to Miami at once. Theo. R. V. Keller, named for Prest., care of "Sugar," Edison Bldg., New York, writes to Manufacturers Record: Chevalier tract contains 207,000 acres; drainage canals under construction; mill cost $1,500,000; build 6 and probably more mills; railroad cost exceeding $1,000,000; planting cane 2 successive years, $1,500,000; nearly 1,000,000,000 ft. commercial timber on land; cut and saw by lumber company under percentage agreement; Samuel Rowland, Ginsburg, Ch. Engr., New York; B. M. Hall, Drainage Engr., Peters Bldg., Atlanta, Ga.

Fla., New Port Richey.—Richey Construction Co.; contemplates sugar-cane mill and syrup elevator. (See Machinery Wanted—Sugar-Cane Mill.)

Fla., St. Petersburg — Cigars. — W. H. Streeter Cigar Co., Central Ave. (lately noted incptd., $50,000), organized; A. P. Avery, Prest.; W. H. Streeter, V.-P. and Gen. Mgr.; 45x95-ft. mill-construction factory, $12,000; Edgar Ferdon, Archt.

Fla., Tampa — Cigars. — F. Garcia & Bros. incptd.; $250,000; Francisco Garcia, Prest.-Mgr., New York; Jose Fernandez, Secy., Tampa.

Fla., Tampa—Fruit Products.—Sub-Tropical Fruit Products Co., Hillsboro Hotel, organized; $500,000; W. B. Coarsey, Prest.; A. B. Hull, Secy.-Treas.; plant; daily output 10,000 to 15,000 8-ounce containers. (Supersedes previous item.)

Ga., Cartersville — Hydrated Lime, etc.—Ladd Lime & Stone Co., L. J. Backus, Mgr.; $100,000 addition to mfre. hydrated mason's and finishing lime; daily capacity 100 tons; Richard K. Meade & Co., Engrs., 11 E. Fayette St., Baltimore, Md.

Ga., Cartersville — Overalls. — Rome Mfg. Co., Rome, Ga.; $11,000 overall factory.

Ga., Fitzgerald—Ice Cream.—Aubrey Culverson; ice-cream plant.

Ga., Griffin—Paper Boxes.—Kuster Mfg. Co., Cedartown, Ga.; paper box factory.

Ky., Frankfort—Bakeries.—Franklin County Bakeries Co. incptd.; $4000; Harry S. Smith.

Ky., Harlan — Farm Devices. — Bowen Mfg. Co.; increased from $12,000 to $20,000; plant extensions; manufacture farm devices. (Lately noted incptd.)

Ky., Lexington. — Brown Ice Cream Co.; plant.

Ky., Lexington — Phonographs, etc. — Bohon Co., Harrodsburg, Ky.; plant; mfre., buggies, harness, phonographs.

Ky., Middlesboro — Creamery. — Middlesboro Creamery Co. incptd.; O. G. Catron, J. H. Humphries.

Ky., Murray—Folding Jacks.—Harris Folding Jack Corp. chartered; $10,000; J. N. Harris.

Ky., Owensboro.—Owensboro Conserve Co.; increased from $200,000 to $400,000.

La., Alexandria — Soldering Oil. — Sanitary Soldering Oil Co. incptd.; $50,000; Jas. M. Fream, Prest.; Marion E. Glotfelter, Secy.-Treas.

La., New Orleans—Varnish.—American Paint Works, W. S. Flynn, Gen. Mgr.; enlarge plant; add varnish factory.

Md., Baltimore.—Harvey H. Warwick, Archt., Colorado; $75,000 factory; Edward S. Masher, Contr., 427 Munsey Bldg.

Md., Frederick — Bakery. — R. E. Clapp; bakery.

Miss., Charleston—Beverages.—W. A. Johnson, Grenada, Miss.; bottling works.

Miss., Hattiesburg—Pine Products.—Southern Pine Products Co. organized; $100,000; D. J. Gay, L. N. Dantzler.

Miss., Meridian — Drugs. — Standard Drug Co.; $20,000 site; $100,000 building.

Mo., Kansas City—Work Clothes.—Cowden Mfg. Co.; garment factory.

Mo., Rolla—Creamery.—G. E. Joslin, Cassville, Mo.; creamery and ice plant; contemplated.

Mo., St. Louis — Ice Cream. — Standard Ice Cream Co., 1406 Clark Ave.; plant addition.

Mo., St. Louis—Bakery.—Harry Horrowitz, Boatman's Bank Bldg.; 1-story and basement 52x100-ft. bakery; O. J. Popp, Archt., Odd Fellows Bldg.

Mo., St. Louis—Bottling.—Garrett & Co., 882 Third Ave., Brooklyn, N. Y.; 2-story-and-basement brick reinforced concrete fireproof dealcoholizing bottling and distributing plant; Klipstein & Rathmann, Archts., Chemical Bldg.

Mo., St. Louis—Men's Clothing.—Elder Mfg. Co., 13th St. and Lucas Ave.; increase $1,250,000 to $2,500,000.

Mo., St. Louis—Syrup.—Grin Mfg. Co. incorporated; $10,000; Ben J. Duncan.

Mo., St. Joseph—Serum.—Anchor Serum Co.; serum mfg. plant; virus and serum laboratories, bleeding and preparing rooms; concrete construction.

Mo., St. Joseph—Bags.—Cleveland-Akron Bag Co., G. D. Adams, Prest., Perkins Ave. and E. 40th St., Cleveland, O., writes to Manufacturers Record: Missouri Valley Sack Co., our subsidiary, will build plant; site, buildings and machinery to cost $500,000. Recent report stated: 2-story 300x280-ft. concrete steel factory building; equip to manufacture cotton, burlap and paper bags; Lehr Construction Co., Contr., St. Joseph; Osborn Engineering Co., Engr., Cleveland, O. (Lately noted.)

N. C., Charlotte—Coca-Cola.—Coca-Cola Bottling Co.; $40,000 plant; white tile enamel floor; tile wainscoating; L. L. Hunter, Archt.; R. L. Goode, Contr. (Lately noted.)

S. C., Charleston—Signs.—Palmetto Sign Co. incptd.; $30,000; W. B. Van Ness.

N. C., King.—King Mfg. Co. incptd.; $25,000; J. L. Christian.

N. C., Wilmington — Fisheries Products.—Fisheries Products Co.; increased from $4,000,000 to $10,000,000.

N. C., Wilmington—Cigars.—El Reeso Cigar Co., Greensboro, N. C.; contemplates cigar factory.

Okla., Oklahoma City.—Justa Mfg. Co. incorporated; $250,000; Geo. W. Caldwell, T. J. Thrush, Cody Fowler.

Okla., Sulphur — Asphalt Products. — Jas. S. Downard, Box 734; plant; crush and refine rock asphalt; manufacture asphalt and products. (See Machinery Wanted — Crushing Plant; Oil Refinery.)

Okla., Tulsa—Artificial Rubber, etc.—International Asphalt, Paint, Varnish & Artificial Rubber Co. incptd.; $100,000; Joseph E. Parker, Wm. A. Hayes.

S. C., Bamberg—Bottling.—Bamberg Bottling Co. organized; $10,000; Thos. Ducker, Prest.-Mgr.; $3000 building; $6000 machinery ordered; contemplates bottling Queen Cola.

S. C., Charleston — Chemicals. — Crystal-on Chemical Co. incptd.; $250,000; F. E. Beatty, W. B. Atwater, J. F. Morse, C. H. Drayton.

S. C., Columbia—Coca-Cola.—Coca-Cola Bottling Co.; $35,000 plant.

S. C., Ridgeland—Bottling.—Jasper Bottling Works incptd.; $5000; J. C. Purdy.

Tenn., Kingsport—Pyrex.—Corning Glass Works, Corning, N. Y.; pyrex glass plant; enlarge 2 buildings; erect 2 buildings; 30-acre site.

Tenn., Memphis — Medicine.—Toms Remedy Co., 254 Vance Ave.; increased from $10,000 to $200,000; factory, $25,000; install machinery.

Tex., Austin—Pulley Covering.—Master-Grip Mfg. Co., Masonic Temple, organized; H. T. Gerhard, Prest.-Mgr. (Supersedes recent item.)

Tex., Houston—Paste Products.—Pan-American Mfg. Co. organized; $100,000; L. Glarrantano, Prest.; V. Navarro, Treas.; $30,000 hollow-tile and brick building; manufacture paste products, macaroni and spaghetti.

Tex., San Antonio — Peanuts, etc.—G. A. Duerler Mfg. Co.; 75x110-ft. pecan and peanut shelling plant; $16,450; A. A. Herff Co., Archt.; H. F. Reneberg, Contr.

Tex., Texarkana—Brooms.—Southland Broom Co., Box 62 (lately noted incptd., $12,500) organized; F. G. Mullin, Prest.-Mgr.; $1500 broom machinery; daily output 50 doz.

Va., Chilhowie.—G. A. Eller; creamery and ice factory.

Va., Harrisonburg—Cigars.—Morris D. Newman Cigar Co., A. A. Brown, Lynchburg, Va.; contemplates cigar factory.

Va., Graham — Beverages. — Clinch Valley Fruit Products & Manufacturing Co. (lately noted incptd., $10,000) organized; Matt Drewry, Prest.; J. H. Long, Gen. Mgr.; has building; beverages.

Va., Lynchburg—Polish.—Morris Chemical Corp. organized; $24,000; Robert Smith, Prest.; A. T. Harwood, Secy.-Treas.; leased building; has machinery; daily output 100 gals. automobile and furniture polishes.

Va., Lynchburg—Signs.—Lynchburg Sign Works incptd.; $50,000; D. T. P. Stanford, Prest.-Treas.; C. W. S. Thompson, Secy.

Va., Norfolk — Washclean. — Washclean Mfg. Co. incptd.; $200,000; C. W. Nixon, Prest.; L. W. Swan, Secy., both Boonville, Mo.

Va., Norfolk—Ice Cream.—Ice, Cold Storage & Freezing Corp. chartered; $1,000,000; J. C. Prince, Prest.; S. S. Keeling, V.-P.; Thomas J. Hogan, Secy.; J. W. Easter, Treas.; ice-cream plant; purchased site.

Va., Portsmouth — Novelties. — Portsmouth Novelty Co. incptd.; $50,000; Harry Alexander, Prest.

Va., Richmond—Flavoring Extracts.—C. F. Sauer Co., Meadow and Broad Sts.; building; top addition to present building; 4 stories, 80x106 ft., brick or reinforced concrete; H. T. Barnham, Archt., Chamber of Commerce Bldg.

Va., Roanoke — Signs. — Utility Advertising Corp. chartered; $25,000; L. H. Keen, Prest.

W. Va., Grafton — Window Glass. — Royal Window Glass Co., Al Kraft, Local Mgr.; additional glass plant; steel and brick; 24-blower window-glass factory.

W. Va., Huntington—Architectural Stone.—Huntington Architectural Stone Co. incptd.; $25,000; H. C. Hoffman; factory.

W. Va., Huntington—Glass.—West Virginia Glass Mfg. Co. organized; care Dana A. Mossman; glass plant; 8-acre site; Black Construction Co., Contr.

W. Va., Huntington — Thermos Bottles.—American Thermos Bottle Co., 35 W. 31st St., New York; $600,000 branch manufacturing plant; 30-acre site; 1-story brick concrete buildings; writes to Manufacturers Record: Plans not sufficiently formulated to state details; probably ready in 60 days. (Lately noted to build $600,000 plant.)

W. Va., Wheeling — Office Equipments. — Wheeling Office Equipment Co. incptd.; $5000; W. F. Sharbaugh.

Motor Cars, Garages, Tires, Etc.

Ala., Albany—Garage.—Harris Motors Co.; 2-story brick garage.

Ala., Birmingham—Garage.—W. S. Saunders, Omaha, Neb.; automobile garage and rent service station; $65,000.

Ark., Batesville — Automobiles.—Dixie Auto Co. incptd.; $12,000; E. O. Arnold.

Ark., Bentonville—Service Station.—Benton County Hardware Co.; 2-story 62x165x82-ft. brick sample-room and Ford station; $25,000; O. J. Parker, Contr., Oklahoma City, Okla. (Supersedes recent item.)

Ark., Conway—Filling Station.—R. E. Wait, Lodie V. Biggs; building for filling station.

Ark., Little Rock—Garage.—L. Collomore; brick garage; $12,000.

Ark., Lonoke—Garage.—S. S. Glover; 100x120-ft. building; brick walls, stone trimming, tar and gravel roof, concrete floor; $22,000; Mann & Gatling, Archts., 614-16 Scimitar Bldg., Memphis, Tenn.

Fla., Gainesville — Automobiles. — J. R. Fowler; automobile stations; J. S. Edinfield, Contr., Gainesville; T. M. Bryan, Archt.

Fla., St. Petersburg — Garage. — Beard & French; 2-story garage; concrete block; $3600.

Ga., Decatur—Automobiles.—E. F. Tuggle; annex to Ford plant and further addition to building; $18,000.

Ga., Ocilla — Service Station. — J. P. Cox; service station on Dixie Highway; $25,000.

Ky., Louisville—Garage.—West Market Garage incptd.; $10,000; Paul E. Will.

Ky., Madisonville — Tire Pumps.—Kentucky Tire Pump Co. incptd.; $150,000; Walter J. Ruby, Hoyt H. Coil, E. B. Taylor.

Ky., Winchester—Garage.—Swope Garage Co. incptd.; $20,000; Thos. M. Swope.

La., Leesville—Garage.—Nona Lumber Mills; 1-story, 50x100-ft. addition to Ford garage; brick, concrete foundation and floor; $15,000 to $20,000; Knapp & East, Contrs.; F. W. Steinman & Son, Archts., Beaumont, Tex.

Md., Baltimore—Garage.—Max Calvalercheck, 28 W. Lexington St.; 1-story 32x77-ft. building; Stanislaus Russell, Archt., 11 E. Lexington St.

Md., Baltimore — Tires. — Rubbermetal Co., 210 E. Lexington St., incptd.; $100,000; Geo. H. Pembroke, Michael Tetrick.

Md., Dundalk—Garage.—John Cowan & Son, 17 E. Lafayette Ave., Baltimore; have contract for 1-story 100x130-ft. garage.

Md., Westminster.—B. F. Shriver Co.; 125x60-ft. brick, steel and concrete building; slag roof, concrete floor; $20,000; J. F. Roystone, Archt.

Mo., Ozark—Garage. — Ozark Motor Sales Co., W. S. Kissick, Prest.; 1-story-and-basement 75x138-ft. building; reinforced concrete, pressed brick, stone trimmed front; fireproof; Widmer Engineering Co., Engr., St. Louis, Mo.; Geo. F. Reed, Archt., Springfield, Mo.

Mo., Kansas City—Motor Trucks.—Kansas City Truck Co. incptd.; $1,000,000; Theo Ditmars, Thos. A. Ferguson, Chas. B. Day.

N. C., Charlotte — Batteries. — Automotive Electric Service Co., H. C. Moynelo, Mgr., 233 N. Tryon St.; 42x60-ft. brick building; $6000; storage battery repairs and recharging; W. H. Peeps, Archt.

N. C., Greensboro — Automobiles. — The Service Co. of Greensboro incptd.; $25,000; R. G. Rives.

N. C., Greensboro—Automobiles.—American Motors Corp., 141 Broadway, New York; advises Manufacturers Record: Contemplate establishing assembling plant; not reach point where can give definite details. (Lately reported to establish plant with annual output 5000 motor cars.)

N. C., Lenoir.—Caldwell Motor Co. (lately noted incptd., capital $125,000) organized; W. J. Lenoir, Prest.; C. H. Hopkins, V.-P.; W. B. Lindsay, Secy.; W. L. Lenoir, Treas.; has 3-story 52x110-ft. building.

N. C., Winston-Salem—Repairs.—G. C. Gentry; convert building into garage and service station, brick addition adjoining for repair shop.

Okla., Ardmore — Garage. — Grand Central Garage incptd.; $40,000; W. Belvins.

Okla., Bristow—Garage. — B. F. Curran; 50x125-ft. garage.

Okla., Muskogee — Automobiles. — Southwestern Sales Co. incptd.; $30,000; C. E. Harris.

Okla., Oklahoma City—Tires.—Oklahoma Airless Tire Co. incptd.; $10,000; P. J. Rollow.

Okla., Oklahoma City—Automobiles.—Packard Automobile Agency; 2-story building; $50,000.

Okla., Oklahoma City—Filling Station.—Shaffer Oil & Refining Co., 611 Colcord Bldg.; 1-story 18x30-ft. brick and reinforced filling station.

Okla., Oklahoma City—Garage.—McClelland-Centry Motor Co., 825 N. Broadway; 2-story and basement 50x140-ft. building; brick, stone, reinforced concrete, fireproof; Layton, Smith & Forsyth, Archts., 701 Southwest Reserve Bank Bldg.

S. C., Charleston—Motors.—Charleston Motor Sales & Realty Co. incptd.; $30,000; Walter B. Wilbur.

S. C., Columbia — Garage. — R. W. Gibbes; garage; $2000.

S. C., Columbia — Automobiles. — Mutual Motor Co. incptd.; $25,000; M. B. Thomas.

S. C., Florence — Automobile Parts.—Eagle Machine & Mfg. Co. incptd.; $20,000; D. W. Martin.

S. C., Gaffney—Automobile Display-room. B. L. Hames, Edward Watson; brick display-room.

Tex., Beaumont — Motor Trucks. — Alex Feigelson; motor truck factory addition.

Tex., Dallas—Garage.—Bowman-Ellis Co. incorporated; $4500; L. E. Wilson.

Tex., Ranger—Garage.—Palmer Bros.; 40x100-ft. building; $5000; McNelly Bros., Contrs.

Tex., San Antonio—Garage.—Staacke Bros.; 100x130-ft. building; concrete and hollow tile, composition roof, concrete floor; $24,000; lighting plant, $300; Coleman & Jenkins, Contrs.; Phelps & Dewees, Archts., 718 Gunter Bldg.

Tex., San Antonio—Oil Station.—Motor Car Supply Co. will occupy triangular 103x103-ft. fireproof building to be erected by L. & A. P. Ward; oil station, tire and accessory store; $20,000; Ralph H. Cameron, Archt.

Tex., San Antonio—Batteries.—Russell A. Roos; occupy 30x52-ft. building to be erected by L. & A. P. Ward; Ralph H. Cameron, Archt.

Va., Norfolk — Garage. — McLean & Cooper, Dickson Bldg.; 1 story, 25x110 ft.; Nugent Price Construction Co., Contr., 121 Taxwell St.

Va., Norfolk — Garage. — Travelers Garage, care of B. Gray, City Hall; 3-story 120x338-ft. concrete building; W. B. Tunstall, care of H. B. Goodridge, Bank of Commerce Bldg.

Va., Portsmouth—Garage.—Jos. Wiemer; 1-story garage; Caldrazzio & Catania Co., Contr.

Va., Petersburg—Garage.—J. A. Dameron & Co., care of Dodge Car Co., 111 W. Washington St.; 2-story 32x120-ft. building; Harrison Construction Co., Contr., Mechanics Bldg.

Va., Richmond — Accessories. — American Auto Accessories Corp. chartered; $25,000; H. R. Ansell, Secy.

W. Va., Clarksburg—Gasoline Station.—Auto Sales Co., C. C. White, Mgr.; building for gasoline station and storage-room; $3500.

W. Va., Mannington—Garage.—Ford Automobile Co., Shultz & Meighon, Agts.; garage.

W. Va., Welch—Automobiles.—Hill Motor Co.; 4-story-and-basement 75x150-ft. fireproof building; brick, plate-glass windows; $100,000; A. V. Wooton, Archt., Huntington, W. Va.

Railway Shops, Terminals, Roundhouses, Etc.

Tex., Smithville. — Missouri, Kansas & Texas Ry. Co.; roundhouse; C. I. Evans, Ch. Asst. Mech. Engr., Denison, Tex.

Road and Street Construction.

Ala., Decatur. — City, James A. Nelson, Mayor; asphalt, asphaltic concrete or bitulithic pavement and cement gutters; bids opened Oct. 23. (See Machinery Wanted—Paving.)

Ala., Mobile. — Mobile County Commrs.; roads; vote Nov. 17 on $150,00 bonds. (Supersedes recent item.)

Ala., Selma.—City; concrete sidewalks on Broad St.; bids until Oct. 27; W. O. Crisman, City Engr. (See Machinery Wanted—Paving.)

Ark., Augusta.—Woodruff County Commrs. Road Dist. No. 12, E. C. Echols, Cotton Plant, Ark.; 26 mi. asphaltic macadam; $448,000; J. A. Burt, Contr., Gunnison, Miss.; E. E. Mashburn, Engr., Cotton Plant, Ark.

Ark., Augusta.—Woodruff & Prairie County Road Dist. No. 6, Bob Chambers, Cotton Plant, Ark.; 21 mi. waterbound macadam; $415,000; J. A. Burt, Contr., Gunnison, Miss.; E. E. Mashburn, Engr., Cotton Plant, Ark.

Ark., Harrison.—City; pave 5 blocks. Address The Mayor.

Ark., Jonesboro.—Commrs. County Highway Improvements Dists., Craighead, Greene and Poinsett counties; 84 mi. asphaltic concrete on cement concrete base, or asphaltic macadam on gravel base or clay gravel; bids until Oct. 24. (See Machinery Wanted—Road Construction.)

Ark., Little Rock.—Commrs. Street Improvement Dist. No. 265, Thomas M. Cory, Secy.; drain, curb and pave 7 blocks streets with bitmuated concrete or asphaltic concrete; 6378 sq. yds. pavement; bids until Oct. 27; Ford & MacCrea, Engrs., 326 Gazette Bldg. (See Machinery Wanted—Paving.)

Ark., Lonoke.—Lonoke County Commrs., Arkansas & Missouri Highway Dist., E. A. Howell, Secy.; 13.2 mi. road through Cabot, Austin and Ward; Merchants' Transfer Co., Contr., Little Rock, Ark.; Blackshire & Mercer, Engrs., Searcy, Ark. (Lately noted inviting bids.)

Ark., Perryville.—Perry County Commrs. Road Improvement Dist. No. 1, J. T. Chafin, Secy.; 26¼ mi. road, 96,000 cu. yds. grading; $120,000; G. C. Williams, Contr., Perryville; Parkes Engineering Co., Engr., Pine Bluff, Ark. (Lately noted inviting bids.)

Fla., Live Oak.—Suwanee County Commrs.; highways and lateral roads; voted $700,000 bonds. (Lately noted to vote.)

Fla., Madison.—Madison County Commrs.; roads; vote on bonds.

Fla., Miami.—Dade County Commrs.; roads and bridges; vote on $30,000 bonds.

Fla., Ocala.—Marion County Commrs.; 46 mi. roads; vote Dec. 2 on $1,500,000 bonds.

Ga., Roswell.—City; concrete street; link of Atlanta to Asheville Highway; voted $25,000 bonds.

Ky., Hickman.—Fulton County Commrs.; 15.3 mi. Charleston-Bird's Point concrete road; $15,162.58; Roy Williams, Contr., Charleston, Mo.

La., Donaldsonville.—H. S. Smith, Thibodaux, La., interested; road to Gibson through 6 parishes; $100,000.

La., Baton Rouge.—State; Chef Menteur Highway between Gentilly Terrace and Chef Menteur; Blakemore Construction Co., Contr.

La., Lafayette. — City, Robert Mouton, Mayor; 30 mi. paved or gravel streets, drainage system, extend and improve water mains, systems of parks; voted $425,000 bonds.

La., Franklinton.—Highway Dept. Board of State Engrs., Room 736 Maison Blanche Annex, New Orleans; 22.73 mi. Pearl River highway, Washington Parish, gravel; 11.97 mi. Mississippi State line highway, gravel; bids until Oct. 27; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Lake Providence. — Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans; 17.37 mi. Lake Providence, Arkansas highway, East Carroll Parish, gravel; 17.89 mi. Lake Providence, Tallulah highway, East Carroll Parish, gravel; bids until Oct. 27; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Jennings.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans; 19.43 mi. Pelican highway, Jefferson Davis Parish; bids until Oct. 27; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Opelousas.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans, La.; 11.3 mi. Melville-Palmetto highway, gravel, St. Landry Parish; bids opened Oct. 20; changed date from Sept. 25; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Vinton.—Town, B. J. Blanchard, Mayor; cement sidewalks and curbing; bids opened Oct. 21; F. Shutts & Sons, Engrs., Lake Charles, La. (See Machinery Wanted—Paving.)

La., Vidalia.—Concordia Parish Police Jury, John Dale, Jr., Clk.; 8-mi. gravel road from Ferriday to Tensas Parish line; $500,000 available; S. A. Gano, Contr., New Orleans; T. S. Shields, Engr., Vidalia. (Lately noted)

Md., Baltimore.—Board of Awards; improve Allen Ave., Carlisle Ave., Vickers Rd., Thirty-sixth St., etc.; $62,655; Allen Co., Contr.; Geo. F. Wieghardt, Highways Engr.

Md., Kensington. — Montgomery County Commrs., Rockville; 3/5 mi. road to connect Connecticut Ave., Forest Glen and Garrett Park pikes; $17,000; Voght Construction Co., Contr., Washington, D. C.

Md., La Plata.—State Roads Comsn., 601 Garrett Bldg., Baltimore; 2 mi. State highway from State Road near Faulkner toward Allen Fresh, gravel; Charles County, Contract CH-16, Federal-Aid Project No. 31; bids until Oct. 28. (See Machinery Wanted—Road Construction.)

Miss., Brookhaven.—Lincoln Highway Commission, Fourth Road Dist.; 3.6 mi. road; Federal-Aid Project No. 10-B, State Trunk Rd. between Jackson and McComb; 32,000 cu. yds. grading; 7550 cu. yds. gravel; $28,648.29; Middleton & Smith, Contrs., Brookhaven; Xavier A. Kramer, Engr., Jackson, Miss. (Lately noted inviting bids.)

Miss., Indianola.—Sunflower County Supervisors; roads in Fifth Dist.; voted $400,000 bonds.

Miss., Pascagoula.—Jackson County Supvrs.; 4 mi. concrete road between Moss Point and Pascagoula, 18 ft. wide; $136,345.76; J. T. Galloway and H. J. Bonnabel, Contrs.

Miss., Senatobia.—Tate County Supvrs., J. A. Wooten, Clerk; grade 70 mi. roads, 25 ft. wide; concrete bridges and culverts; $150,000; E. D. Harvey & Co., Contrs., Memphis, Tenn. (Lately noted inviting bids.)

Miss., Wiggins.—Stone County Commrs., A. W. Bond; gravel road; $30,000; X. A. Kramer, Engr., Jackson, Miss. (Lately noted to vote on $30,000 bonds.)

Mo., Brookfield.—City, C. A. Diemer, Clk.; pave Brookfield Ave., Linn, Macon and Shelby Sts.; $30,000; Jesse Williamson and C. A. Diemer, Contrs.

Mo., Cartersville.—City; pave Main St.; Boyd & Burris, Contrs. (Lately noted voting $30,000 bonds.)

Mo., Jefferson City.—City; grade and macadamize with asphalt binder Clark Ave.; bids until Nov. 3; Linn F. Brown, City Engr. (See Machinery Wanted—Paving.)

Mo., New Madrid. — New Madrid County Commrs.; grade, ditch, rock surface, etc., 7.95 mi. Morehouse-Libourn road; 14.28 mi. Lurbourn-Parma road; bids until Oct. 27; C. V. Hansen, Highway Engr. (See Machinery Wanted—Road Construction.)

Mo., Palmyra. — Marion County Commrs.; gravel road from Hannibal to Perry; $125,000; B. F. Smiley, County Highway Engr.

Mo., Paris.—Monroe County Commrs.; roads; defeated $972,000 bonds. (Lately noted to vote.)

Mo., Richmond. — Ray County Commrs.; roads; vote Nov. 22 on $1,300,000 bonds.

Mo., Senatobia.—Tate County Commrs.; grade 100 mi. roads; $200,000; F. D. Harvey, & Co., Contrs., Memphis, Tenn. (Lately noted inviting bids.)

N. C., Goldsboro.—City, I. M. Cashell, City Mgr.; grade and pave streets with sheet asphalt; 100,000 sq. yds. pavement; 55,000 lin. ft. curb and gutter; 5000 sq. yds. sidewalk paving; $450,000; West Construction Co., Contr., Chattanooga, Tenn.; J. L. Ludlow, Consit. Engr., Winston-Salem, N. C. (Lately noted inviting bids.)

N. C., Lexington. — Town, J. T. Hedrick, Mayor; street improvements; vote Nov. 25 on $250,000 bonds.

Okla., Hartshorne.—City; pave Pennsylvania Ave.; V. V. Long & Co., Consit. Engrs., 1300 Colcord Bldg., Oklahoma City.

Okla., Collinsville.—City Commrs.; 15,000 sq. yds. additional paving; $75,000; Johnson & Benham, Consit. Engrs., 8th floor Firestone Bldg., Kansas City, Mo.

Okla., Collinsville.—City Commrs.; improve Center, Main, Broadway, Oak and other streets; 30,000 sq. yds. vitrified brick blocks with asphalt filler; $170,285.33; Standard Paving Co., Contr., Tulsa; Johnson & Benham, Consit. Engrs., 8th floor Firestone Bldg., Kansas City, Mo. (Lately noted inviting bids.)

Okla., Stillwater.—Payne County Commrs.; 4000 yds. concrete paving; $20,000; F. C. Kroeger & Co., Contrs., Tulsa, Okla.; Alfred Boyd, Engr., Stillwater. (Lately noted.)

Okla., Tecumseh. — Pottawatomie County Commrs.; roads in Earlsboro Dist.; Davis Township; Dent Township; Bales Township; Brinton Township; Forrest Township; Rock Creek Township; vote in November on $500,000 bonds.

Okla., Tulsa.—Tulsa County Commrs.; grade 10 mi. highway between Sand Springs and Keystone; J. T. Lantry Construction Co., Contr.

S. C., Anderson.—Anderson County Highway Comsn., W. C. Austin, Secy.; hard-surfaced road from Anderson to Gluck Mill.

S. C., Hampton.—Hampton County Commrs.; 15.62 mi. sand-clay road and several bridges; 37,339 cu. yds. sand-clay surfacing; bids until Oct. 29; F. H. Murray, Acting State Highway Engr., Columbia, S. C. (See Machinery Wanted—Road Construction.)

S. C., Columbia.—City; 3000 sq. yds. concrete sidewalk paving; 4000 lin. ft. concrete curb; 1500 lin. ft. storm drain pipes; bids opened Oct. 23; J. Keith Legare, City Engr. (See Machinery Wanted—Paving.)

S. C., Greenwood.—Greenwood County Highway Comsn., E. I. Davis, Secy.; 11.1 mi. Callison road from Dixie Highway to McCormick county line; 42,500 cu. yds. topsoil; bids until Oct. 28; B. R. Cowherd, Jr., County Engr. (See Machinery Wanted—Road Construction.)

S. C., Laurens.—City; improve streets; vote

on $25,000 bonds. Address The Mayor. (Lately noted.)

S. C., Spartanbugr.—City, J. F. Floyd, Mayor; paving bituminous and brick pavements; bids until Nov. 3; Harwood Beebe, Engr. (See Machinery Wanted—Paving.)

Tenn., Memphis. — State Highway Dept., Nashville; 16.35 mi. State Highway No. 12 between Memphis and Millington; cement concrete pavement, rock asphalt or bituminous macadam with seal coat rock asphalt; bids until Nov. 10; W. P. Moore, Ch. Engr. (See Machinery Wanted—Road Construction.)

Tenn., Somerville.—Fayette County Commissioners; highways; voted $500,000 bonds. State and Federal aid $1,000,000. Lately noted voting $500,000 bonds.)

Tenn., Spencer.—Van Buren County Commissioners; improve public roads; State and Federal aid; issued bonds; road from Spencer to Pikeville.

Tenn., Rutledge.—Tennessee State Highway Dept., W. P. Moore, Ch. Engr., Nashville, Tenn.; 50 mi. State highway No. 1 in Grainger, Hawkins and Sullivan Counties; 458,245 sq. yds. water-bound macadam, 15,653 sq. yds. bituminous macadam; bids until Nov. 7. (See Machinery Wanted—Road Construction.)

Tex., Bellville.—Austin County Commrs.; roads; voted $1,500,000 bonds. (Lately noted to vote.)

Tex., Cleburne.—City; 8000 yds. paving on Forrest Ave.; R. L. Davenport, Contr.

Tex., Houston.—Harris County Commrs.; approved road expenditure $121,400 for improving Washington Ave., $17,500; Webster-Airline to Galveston, $24,000; Houston-Crosby, $17,400;; Houston-Katy, $7600; Main St., $4900; East Montgomery, $14,900; Telephone road, $30,000; Houston-Humble, $6000.

Tex., Lufkin.—City Commrs.; street improvements; vote Nov. 19 on $100,000 bonds. (Lately noted.)

Tex., Menard.—Menard County Commrs.; improve roads; vote on $150,000 bonds; State and Federal aid, $60,000.

Tex., Boerne.—Kendall County, J. A. Phillip, Judge; retop with gravel, surface treatment, 5¾ mi. State Highway No. 19; width 16 ft.; bids until Nov. 10. (See Machinery Wanted—Road Construction.)

Tex., Breckenridge.—Stephens County Commissioners; roads; vote on $3,500,000 bonds.

Tex., Longview. — City, G. A. Bodenheim, Mayor; 22,000 sq. yds. pavement; 12,700 lin. ft. concrete curbing; bids opened Oct. 2°; H. N. Roberts, Engr. (See Machinery Wanted — Paving.)

Tex., Sherman.—City, O. J. S. Ellingson, City Manager; 73,466.4 sq. ft. sidewalks; bids opened Oct. 20. (See Machinery Wanted—Paving.)

Tex., Tyler.—Smith County Commrs.; 10 mi. gravel and concrete roads on west end Dixie highway; steel or concrete bridges and culverts.

Tex., Waco.—City; pave Gurley Ave. Address The Mayor.

Va., Charlottesville. — Albemarle County Supvrs.; grade 1.66 mi. Scottsville road; 12-ft. bridge and culverts; $16,500 available; Burgess & Atkinson, Contrs.; S. C. Liggett, Engr. (Lately noted inviting bids.)

Va., Rustburg.—Campbell County Supvrs.; 5 mi. Salem turnpike; 7360 cu. yds. soil; John T. McKinney Construction Co., Contr., Lynchburg, Va.; W. F. Day, County Eng., 41 Medical Bldg., Lynchburg, Va. (Lately noted inviting bids.)

Va., Prince George.—Virginia State Highway Comsn., Richmond; 11 mi. gravel road; $70,000; Rogers and Shumway, Contrs., Lynchburg, Va.., and Portsmouth, O.

W. Va., Avis.—City, R. F. Beasley, Recorder; 6-ft. wide concrete sidewalks on Main St.; bids opened Oct. 20. (See Machinery Wanted, —Paving.)

W. V., Logan.—Logan County Commrs.; improve Class A roads; vote on $1,000,000 bonds; J. M. McClaren, County Engr.

W. Va., South Charleston.—Town, Albert Bennett, Mayor; pave 7th Ave. and C St.; 15,000 sq. yds. paving; 6500 lin. ft. curbing; $50,000; West Virginia Bitu Concrete Corp., St. Albans, W. Va. (Lately noted inviting bids.)

W. Va., Warwood.—Town, C. H. Dowler, Mayor; pave Main St.; concrete base with brick; sewers; $25,000; P. G. Gilligan, Contr.

W. Va., Wayne.—Wayne County Commrs.; grade 7 mi. Wayne-Kenova road; $126,000; Rogers & Shumway, Contrs., Lynchburg, Va., and Portsmouth, O.; (Lately noted inviting bids.)

W. Va., Winfield.—Putnam County Commissioners; road improvement in Scott Dist.; $100,000 available; G. H. Davis, Engr., Poca, W. Va. (Lately noted.)

Sewer Construction.

Ga., Soperton.—City; sewer system; voted bonds. Address The Mayor.

La., Lafayette. — City, Robert Mouton, Mayor; drainage system; extend water mains; additional wells; street and park improvements; voted $425,000 bonds. (Lately noted.)

Md., Elkton. — Town Commrs., Wm. H. Mackall, Prest.; $15,000 sewer system; 6 to 12 in.; Levin J. Houston, Engr., Baltimore, Md., and Fredericksburg, Va.

Miss., Greenville.—City; sewer extension and improvements; $75,000; population 40,000; J. W. Billingsley, Contr., New Orleans, La. (Lately noted to vote.)

Miss., Starkville.—City; sewer, water and electric light systems; voted $55,000 bonds. Address The Mayor. (Lately noted to vote.)

Okla., Frederick.—City, D. W. Womach, Clerk; double unit reverse flow Imhoff tank; sludge bed; screen and grit chamber; chlorinator-house; manholes, piping, valves, outfall sewer, etc.; bids until Oct. 14. Henry A. Pressey, Engr.

Mo., Mexico.—City, J. F. Harrison, Mayor; sewer system; 2 sewage-disposal Imhoff type tanks; vote Nov. 10 on $25,000 bonds. (Lately noted contemplated.)

N. C., Wadesboro.—City; buy and extend sewer system; voted $35,000 bonds. Address The Mayor.

Okla., Chandler. — City; sewer extension; lateral sewers; V. V. Long & Co., Conslt. Engrs., 1380 Colcord Bldg., Oklahoma City.

Okla., Durant.—City; sewer and water systems extensions; voted $25,000 bonds. Address The Mayor.

Okla., Quapaw.—City; sewer system; $22,500 bonds. Address The Mayor.

S. C., Laurens. — City; sewer, light and water systems improvements; vote on $100,000 bonds. Address The Mayor.

Tex., Denton.—City, H. V. Hennen, Mayor; $10,000 sewer; 6 to 18 in.; Koch & Fowler, Engrs., Dallas, Tex.; City of Denton, Contr.; extend disposal plant. (Lately noted opening bids Sept. 29.)

Tex., Lufkin. — City; sewer improvement; vote Nov. 19 on $50,000 bonds. Address The Mayor.

Tex., Van Alstyne.—City; sanitary sewers, Imhoff tank and sprinkling filters, $31,000; disposal plant, $9000; Henry Exall Elrod Co., Engr., Dallas, Tex.; Jones Contracting Co., Contr., 122½ W. Oklahoma Ave., Guthrie, Okla. (Supersedes recent item.)

W. Va., Ronceverte.—City, Wm. B. Blake, Jr., Mayor; sewer and water systems extensions; voted $20,000 bonds. (Lately noted to vote.)

W. Va., Warwood.—City, C. H. Dowler, Mayor; sewers; paving; $25,000; P. G. Gilligan, Contr.

Textile Mills.

Ala., Ozark—Twine, etc.—Rainbow Mfg. Co. organized; $32,000; E. L. Dowling. Prest.-Treas.; $8000 brick foundation, wood frame construction with paper roof, 80x170-ft. mill; 2080 spindles; $20,000 mill machinery; electric power; daily capacity 2000 lbs. wrapping twine, rope, etc.; W. M. Hunter, Engr.-Archt. (Supersedes previous item.)

Ga., Marietta—Hosiery.—Marietta Mfg. Co., W. F. Hetrick, Propr., Gainesville, Ga.; has building; $20,000 mill machinery; 44 knitters; $1500 electric and steam power equipment; belt driven; daily capacity 150 doz. prs. hose. (Supersedes previous item.)

Ga., Sparta—Knitting.—L. C. Miller; contemplates knitting mill; 20-acre site.

N. C., Albemarle—Yarn.—Efird Manufacturing Co., J. S. Efird, Treas.; advises Manufacturers Record: Build mill; 2-story 110x385-ft. addition; 18,000 spindles. (Supersedes recent item.)

N. C., Raleigh—Print Cloth, etc.—Consolidated Textile Corp. chartered; $1,000,000, no par value shares common stock; now issue $110,000, representing capital and capital surplus of $3,338,626.93; acquires Pilot Cotton Mills Co., Raleigh; James N. Williamson & Sons Co., Burlington, and Ella Mfg. Co., Shelby; 4 mills; 40,340 spindles, 1019 looms, water-power plants, dyehouses, operatives' dwellings, stores, etc.; mfres. print cloth, outing flannels, etc. Fred K. Rupprecht, Prest.; Sherburne Prescott, Treas.; Henry B. Stimson, Secy.; all of New York.

S. C., Fort Mill—Ginghams, etc.—Fort Mill Mfg. Co.; extensions; 60x120-ft. slasher-room; 80x114-ft. dyehouse; 30x114-ft. opener-room and waste building; mill construction; 2 story; individual electric power; J. E. Sirrine, Engr.-Archt., Greenville, S. C.

S. C., Greenville—Cotton Waste.—Chester M. Goodyear Co. organized; Aug. W. Smith, Prest.; Chester M. Goodyear, Treas.-Mgr.; $200,000 buildings; 4 stories; 250x100-ft. concrete and brick mill construction factory; 10 warehouses, each 50x100 ft.; $100,000 mill machinery; electric power; 600 H. P.; belt drive; daily capacity 400,000 lbs.; J. E. Sirrine, Engr.-Archt. (Supersedes previous item.)

S. C., Rock Hill—Tickings, etc.—Manchester Cotton Mills; plant extension and reorganization; 260x320-ft. mill-construction, saw-tooth skylight building; 100x180-ft. dyehouse; individual electric power; J. E. Sirrine, Engr.-Archt., Greenville, S. C.

Tenn., Athens—Hosiery.—Fashion Mill organized H. A. Vestal, H. S. Moody; brick building equipment to knit silk hosiery.

Tenn., McMinnville—Hosiery.—Read Hosiery Mill incptd.; $200,000; Sam'l R. Read, Prest.; Sims Read, Mgr.; 3-story 60x120-ft. brick mill construction main building; 1-story 50x95-ft. addition for boiler, bleaching and dyerooms; daily capacity 1000 doz. prs. (Supersedes previous item.)

Miss., Meridian—Hosiery. — Alden Knitting Mills; $20,000 improvements. (Supersedes previous item.)

Va., Petersburg—Silk Hosiery.—Petersburg Silk Hosiery Corp. chartered; $500,000; W. C. Faulkner, Prest.; Thos. B. Gay, Secy.

Water-works.

Ark., Hot Springs.—Hot Springs Water Co., Federal Light & Traction Co., owner, 60 Broadway, New York; $80,000 water-works extension; 1,000,000-gal. reinforced concrete reservoir; 1500-gal.-per-minute centrifugal electrical driven fire pump; 10,000 ft. main. (Supersedes recent item.)

Ga., Cochran.—City; water and light systems improvements; daily capacity 200,000 gals.; 4800 K. W.; voted $15,000 bonds; H. D. Sturdivent, Engr.

Ga., Soperton.—City; water-works improvements; voted bonds. Address The Mayor. (Lately noted to vote $14,000 bonds.)

La., Lafayette.—City, Robert Mouton, Mayor; additional wells; extend water mains; drainage system; street and park improvements; voted $425,000 bonds. (Lately noted.)

La., Lafayette.—L. Wagner; water and electric-light plant for dwelling and barn. (See Machinery Wanted—Water-works.)

Md., Elkton. — Town Commrs., Wm. H. Mackall, Prest.; water-works; install filtration plant; enlarge mains; $80,000 bonds; Levin J. Houston, Jr., Engr., Fredericksburg, Va. (Supersedes previous item.)

Miss., Quitman.—City; water-works; electric lights; steam heat; fire escapes, etc.; vote on $35,000 bonds. Address The Mayor.

Miss., Starkville.—City; water, sewer and electric light system; voted $55,000 bonds. Address The Mayor. (Lately noted to vote.)

Mo., Doniphan.—City; water-works improvements, including oil engine and pump; voted $4000 bonds. Address The Mayor.

Mo., Kansas City.—City, Chas. S. Foreman, Asst. Engr.; waterworks; 2 additional boilers, Turkey Creek pumping station; 450 H. P. each; $50,000.

N. C., Asheville.—R. J. Sherrill, Commr. Public Works; watef-works; 10,000,000-gal. reservoir on Piney Mountain; $250,000.

N. C., Wadesboro.—City; extend and improve water system. Address The Mayor.

Okla., Ada.—City, W. B. Jones, Clk.; waterworks; two 750-gal. per min. turbine pumps, 100 H. P. motors; two 1250-gal. per minute Underwriter turbine fire pumps, 200 H. P. motors; 3 panel switchboard, complete with wiring, recording Venturi water meter, piping, valves, fittings; 10-in. automatic hydraulic valve; bids until Oct. 21; Johnson & Benham, Engrs., Firestone Bldg., Kansas City, Mo. (See Machinery Wanted—Waterworks.)

Okla., Durant.—City; water and sewer system extensions; voted $25,000 bonds. Address The Mayor.

Okla., Henryetta.—City; water-works improvements; vote Oct. 28 on $200,000 bonds. Address The Mayor.

Okla., Hobart.—City, S. B. Nix, Mayor; water-works extension; $120,000 bonds defeated. (Lately noted to vote Oct. 9.)

Okla., Carnegie.—City; water-works; vote on $24,000 bonds; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City.

Okla., Quapaw.—City; water-works; $57,000 bonds. Address The Mayor.

S. C., Batesburg.—Commrs. of Public Works; well-drilling; 10-in. well for water supply; minimum depth 300 ft., maximum depth 800 ft.; Nisbet Wingfield, Consit. Engr., Augusta, Ga.; Virginia Machinery & Well Co., Contr., Richmond, Va. (Lately noted inviting bids.)

S. C., Gaffney. — City; contemplates water and light system extension. Address The Mayor.

S. C., Laurens. — City; water, sewer and light systems improvements; vote on $100,000 bonds. Address The Mayor. (Lately noted contemplated.)

Tex., Terrell.—City; water-works improvements; voted $200,000 bonds. Address The Mayor.

W. Va., Ronceverte.—City, Wm. B. Blake, Jr., Mayor; water and sewer systems extensions; voted $20,000 bonds. (Lately noted to vote.)

Woodworking Plants.

Ky., Lexington—Buggies and Talking Machines.—D. T. Bohon & Co., Harrodsburg, Ky.; establish plant

Ky., Louisville—Tables.—Voss Table Co.; increased from $60,000 to $120,000.

Md., Queen Anne — Barrels. — Queen Anne Packing Co., Easton, Md.; barrel-assembling plant; contemplated. (See Machinery Wanted—Barrel Machinery and Materials.)

Mo., Springfield—Wagon Parts.—Hitchcock Factory Co.; concrete building; mfrc wagon parts.

Mo., St. Louis—Boxes.—Loy-Lange Box Co., 3d St. and Russell Ave.; 2-story brick factory; 145x72 ft.; composition roof; steam heat; $25,000; O. J. Popp, Archt., Odd Fellows Bldg.; Robert Paulus, Contr., 2205 Ann St.

N. C., Winston Salem—Wagons.—Geo. E. Nissen & Co., lately noted to rebuild plant; 187x200, 40x80, 65x37 ft.; dust-collecting system, sprinkler system; daily capacity, 50 farm wagons. (See Machinery Wanted—Dust Collecting System; Sprinkler System.)

Tenn., Memphis—Ready-cut Houses.—Masterbuilt Homes organized; $250,000; Charles J. Haase; factory and warehouse; A. B. Lanning, Contr.

Tex., El Paso—Furniture.—Rio Grande Furniture Co.; increased from $12,500 to $30,000.

Tex., Gilmor—Veneers.—Futrell Veneer Co. inceptd.; $25,000; B. D. Futrell.

Tex., Ranger—Furniture.—Wilson Furniture Co. inceptd.; $5000; J. M. Wilson.

Va., Roanoke—Spokes and Handles.—Roanoke Spoke & Handle Co.; increased from $50,000 to $75,000.

Va., West Point—Shooks.—Union Box Co.; establish plant; 6-acre site.

Va., Woodfords—Excelsior.—W. P. Waite & Bro.; 56x28-ft. building; 30x32-ft. sheet-iron extension for boiler and engine-room; construction by owner; install 10 excelsior machines, boiler, engine; purchased; daily output 5 tons pine excelsior.

Fire Damage.

Ark., Harrison.—Lyric Theater, including $6000 pipe organ.

Ala., Troy.—Wiley Fertilizer Co.'s plant; $60,000.

Ark., Decatur.—H. L. Cotton & Sons' evaporator.

D. C., Washington.—Portion of Maryland Bldg., 1410 H St. N. W., occupied by American Forestry Assn.; loss $10,000; Geo. von L. Meyer, owner.

Fla., Oakhurst.—J. M. Meffort Co.'s limekiln.

Ga., Alston.—G. A. Summon's ginnery; $10,000.

Ga., Cordele.—Thomas Nesbitt's dairy barn; loss $20,000.

Ga., Moultrie.—Planters' Warehouse at Colliage; loss $75,000, including contents.

La., New Orleans.—United Chemical Organic Products Co.'s acid plants and warehouse; $500,000.

Md., Belair.—Jos. T. Hoopes' barn at Woodside near Belair; loss $20,000.

Md., Spielmans Station.—Jacob M. Middlekauff's mill; $35,000.

Md., West Friendship.—Geo. W. K. Ridgely's barn on Fairview farm near West Friendship; loss $10,000.

Miss., West Point.—S. A. Scott's warehouse; loss $10,000.

N. C., Carthage.—S. B. Bartlett's residence; loss $12,000.

S. C., Fort Motte.—J. R. Fairey's ginnery; $12,000.

S. C., Rock Hill.—Jno. B. Roddey Cotton Co.'s warehouse; loss, with contents, $100,000.

Tenn., Chattanooga. — Florence Crittenton Home; loss $25,000; Mrs. Joe Brown, Prest.

Tenn., Columbia.—Adkisson Bros.' boardinghouse.

Tenn., Mascot.—Frank Arnold's residence.

Tenn., Memphis.—Riverside Storage Co.'s warehouse; International Rice Mills' grain elevator; $75,000.

Tex., Brownsville.—Child's Welfare Home; loss $12,000.

W. Va., Shepherdstown.—C. N. Whiting Milling Co.'s plant; $150,000.

BUILDING NEWS

EXPLANATORY.

Buildings costing less than $10,000 not covered in these reports.

BUILDINGS PROPOSED

Apartment-Houses.

Ala., Birmingham.—Wilbur E. Kelly; considering $400,000 8-story apartment-house, 7th Ave. and 19th St.; 75 suites, 3 and 4 rooms; 50x100 ft.; steel, concrete and hollow tile; composition roof; tile and hardwood floors; steam heat; electric lights; concrete sidewalks; electric elevators; Bem Price, Archt.; G. L. Miller & Co., Atlanta, reported interested in financing proposition. (Previously noted.)

Ala., Gadsden.—Dr. C. L. Guice; double apartment; tapestry brick; A. D. Simpson, Archt.

Ala., Selma.—Mrs. Ernest Lamar; 4-story apartment-house; 40 suites.

Ark., Blytheville.—W. W. Hollipeter, Blytheville Lumber Co. and Robinson Bros.; 3-story apartment-house; 100x140 ft.; 16 suites; 3 stores on first floor.

D. C., Washington.—J. W. Lewis, 11th and U Sts. N. W.; 5-story addition to apartmenthouse, 13th and T Sts.; brick, stone and reinforced concrete; 32 suites; Hatton & Co., Archts., 12th and U Sts. N. W.

Fla., Oldsmar.—Wm. R. Rasmussen; 21-room apartment-house; receiving bids.

Fla., St. Petersburg.—Geo. N. Sarven; $10,000 apartment-house; 8 three-room flats; brick.

Fla., St. Petersburg.—W. H. Harder; 2-story, 4-family apartment-house.

La., Shreveport.—A. Goldstein and N. C. Spence; number of frame apartments.

Md., Baltimore.—Cambridge Apartment Co.; apartment-house, St. Paul, 34th and Charles

Sts.; 250x75 ft.; 7 stories; reinforced concrete and hollow tile; slag roof; probably vapor heat; bids until Oct. 27; Edward L. Palmer, Jr., Archt., 513 N. Charles St.; contractors estimating: Geo. A. Fuller Co., American Bldg.; H. D. Watts Co., 502 Garrett Bldg.; Cogswell-Koether Co., 406 Park Ave.; Frainie Bros. & Haigley, 18 Clay St.; Gladfelter & Chambers, 36th and Roland Ave.; Arthur Tufts, Lexington Bldg.; Consolidated Engineering Co., Calvert Bldg.; J. Henry Miller, Inc., Miller Bldg., Franklin and Eutaw Sts. (Lately noted.)

Md., Cumberland. — Homer J. Cordry; 3-story apartment and garage; 50x82 ft.; brick and hollow-tile; $80,000; Geo. F. Sansbury, Archt.; receiving bids.

S. C., Sumter.—H. J. Harby; 3-story apartment-house; twelve 5-room suites; electric lights; basement for heating plant and storage-rooms.

Association and Fraternal.

Ark., Pine Bluff.—Benevolent Protective Order of Elks; $65,000 building; M. J. Gantt, Jr., and others in charge of plans.

Ga., Athens.—Young Women's Christian Assn., Florence Cain, Gen. Secy.; addition to Y. W. C. A.; dormitory to accommodate 50 to 60, offices, clubrooms, parlor, library, kitchenette, etc.; F. B. & A. Ware, Archts., 1170 Broadway, New York.

Ga., Augusta. — Young Men's Christian Assn.; $200,000 building; Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago. (Previously noted.)

Ky., Lexington.—Young Men's Christian Assn.; building for negroes; bowling alleys, billiard-rooms, dormitories, auditorium, etc.; Dr. W. H. Ballard and W. H. Brooks, divisional committee.

Md., Baltimore. — Grand Lodge, Ancient Free & Accepted Masons of Maryland, Charles C. Homer, Jr., Grand Master; additional story on about three-fourths of building on North Charles St.; 3000 additional lockers; $15,000.

Md., Baltimore.—Knights of Pythias, Preston and McCulloh Sts.; $40,000 hall and lodge building; 59.6x166 ft.; 3 stories; brick and steel; slag roof; wood floors; steam heat; electric lights; bids opened Oct. 21; contractors estimating: P. J. Cushen, 220 St. Paul St.; Chiles & Miller, 3824 Garrison Ave.; Gustave Runge & Son, James Ave.; Walter Hammond, 1420 Linden Ave.; H. M. Reinhart & Co., Calvert Bldg. Address Fredk. E. Beall, Archt., 1335 N. Gilmor St. (Lately noted under Miscellaneous.)

Miss., Belzoni. — Masonic Lodge; $60,000 building; Kramer & Lindsley, Archts., Jackson, Miss.

Miss., Vicksburg.—Vicksburg Council No. 808, Knights of Columbus; $75,000 building; 100x125 ft.; 3 stories.

N. C., Wilmington.—Salvation Army, Dr. Jas. Sprunt, Chrmn, Bldg. Com.; building.

W. Va., Bluefield. — Loyal Order of Moose; $75,000 building; 4 stories; brick; auditorium to seat 1200; A. F. Wysong, Archt., Princeton, W. Va.

Bank and Office.

Ala., Montgomery.—Alabama-Georgia Syrup Co., L. B. Whitfield, Prest.; building, offices, dining-room and warehouse space.

Ark., Blytheville.—W. S. Langdon; 5 concrete office buildings.

Ga., Butler.—Taylor County Bank; building.

Ky., Hebron.—Hebron Deposit Bank; brick building; 30x40 ft.; Jake Heuthorn, Archt., Ludlow, Ky. Address Geo. Hafer, Hebron. (See Machinery Wanted—Bank Fixtures; Vault, etc.)

Ky., Lexington.—D. T. Bohon & Co., Harrodsburg, Ky.; $50,000 office building and warehouse.

La., New Orleans.—Interstate Trust & Banking Co., L. H. Dinkins, Prest.; excavate cellar under building at Canal and Camp Sts.; install vaults, etc.

Md., Baltimore.—National Exchange Bank, Hopkins Pl. and Redwood St.; extend building from present structure to Baltimore St.; irregular dimensions; entrance on Baltimore St.; details not determined; Jos. Evans Sperry, Archt., Calvert Bldg.

Miss., Clarksdale.—J. A. Martin and J. W. Mitchell; office building; 32x110 ft.; brick; terra-cotta front; tar and gravel roof; tile, marble and concrete floors; bids opened Oct. 13; Frank P. Gates, Archt. (Lately noted.)

Mo., Kansas City. — Ruffola & Schudiero; bank and office building; 5 stories; 60x140 ft.; restaurant in basement; bank on first floor; offices remaining floors.

Mo., Purdy.—Farmers & Merchants' Bank; building; 30x69½ ft.; brick; concrete floors; Earl Hawkins, Archt., Holland Bldg., Springfield, Mo. (Lately noted.)

N. C., Hendersonville.—Brownlow Jackson; office building.

N. C., Hickory.—First National Bank; building.

Tenn., Chuckey.—Isaac E. Broyles, Prest.; bank building.

Tenn., Memphis.—Doctors' Building Co., Exchange Bldg., Dr. Austin D. Towner, Chrmn. Com.; $800,000 office building; 70x148 ft.; 16 stories; brick and steel; composition roof; tile and oak floors; 7 traction elevators. Address Chas. G. Smith, Exchange Bldg. (Lately noted.)

Tex., Sonora.—First National Bank; $50,000 building; 2 stories; brick and concrete.

Va., Richmond. — Bank of Commerce & Trusts; $75,000 building; fire and burglar-proof vault and 400 to 500 safety-deposit boxes.

Churches.

Ark., Bigelow. — Methodist Episcopal Church South; $10,000 brick building. Address The Pastor.

Ark., Forrest City.—W. S. Graham Memorial Presbyterian Church; $75,000 building; lately noted; brick, stone and terra-cotta; tile roof; wood floors; steam heat; electric lights; construction in May. Address Mann & Gatling, Archts., Scimitar Bldg., Memphis, Tenn. (See Machinery Wanted—Memorial Windows: Pipe Organ; Seating.)

Ga., Athens.—First Baptist Church, Dr. J. W. Lynch, Pastor; $125,000 building.

Ga., Adel.—Baptist Church; church building and parsonage; $25,000; J. E. Greene Archt., Birmingham. Address A. D. Wiserman, Adel.

Ga., Rome.—Rodel Sholim Congregation; $20,000 synagogue. Address The Rabbi.

Ky., Georgetown.—O. W. Williams, Archt., 2225 W. Walnut St., Louisville; $12,000 church annex.

Ky., Louisville.—Emmanuel Baptist Church; $28,000 building, 644 S. 10th St.; 52x75 ft.; Sunday-school annex, 64x25 ft.; wood, brick and stone; asphalt shingle roof; heating, $3100; day labor. Address O. W. Williams, Archt., 2225 W. Walnut St. (Lately noted.)

Ky., Louisville.—O. W. Williams, Archt., 2225 W. Walnut St.; $20,000 church, 619 Lampton St.

Md., Baltimore.—Luther Memorial Church; $30,000 chapel and parsonage; former, 33x77 ft.; contain auditorium, basement, etc.; stone; slate roof; latter, 25x42 ft.; 2 stories; stone and brick; slag roof; wood floors; considering bids; Jno. Freund, Archt., 11 E. Lexington St. (Previously noted.)

N. C., Raleigh.—House of Jacob Congregation; synagogue, Newbern Ave. and East St. Address The Rabbi.

N. C., Winston-Salem.—Trustees West Salem M. E. Church, Rev. A. C. Swafford, Pastor, 639 S. Green St.; $25,000 building; 40x60 ft.; annex 40x50 ft.; brick; asphalt shingle roof; wood floors; steam heat, $1500 to $2500; electric lighting, $300; J. E. Kennerly, probable contractor. Address H. C. Jones, 215 S. Green St. (Lately noted.)

S. C., Rock Hill. — First Presbyterian Church; considering Sunday-school building. Address The Pastor.

Tex., Abilene.—Southside Baptist Church, Rev. E. T. Miller, Pastor; $40,000 to $50,000 building.

Tex., Bryan. — First Methodist Church; $20,000 improvements, including Sunday-school annex, heating plant, etc. Address The Pastor.

Tex., San Marcos.—Baptist Church; building. Address The Pastor.

Va., Cheriton. — Baptist Church, Rev. J. Manning Dunaway, pastor; $25,000 brick building; 2 stories; 65x75 ft.; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Va., Norfolk.—Church of the Blessed Sacrament, Father J. Lee Ryan; church and rectory; 2 stories, 60x90 ft. and 2½ stories, 60x28 ft.; stone; Wickham C. Taylor, Archt., Citizens' Bank Bldg.

W. Va., Parkersburg.—Catholic congregation; building at Dudley Ave. and 24th St.; Rev. J. W. Weringer, Pastor, Huntington, W. Va.

City and County.

Ala., Birmingham—Fire Station.—City; $75,000 central fire station; 3 stories; brick; 2 other stations later. Address City Commrs. (Lately noted to have voted $500,000 fire-equipment bonds.

Ark., Arkansas City — Memorial. — City considering issuing $150,000 bonds to erect memorial building. Address The Mayor.

Fla., St. Petersburg — Bandstand. — Park Board; $10,000 bandstand; W. S. Shull, Archt.

Ga., Brunswick—Memorial.—Glynn County Commrs. Roads and Revenue, Paul E. Twitty, Clk.; considering calling election on bonds to erect technical school and auditorium as soldiers' memorial; about $150,000. (Lately noted.)

Ga., Rome—Jail.—Floyd County Commrs.; considering $100,000 jail.

Miss., Greeneville—City Hall.—City, Guy Drew, Clerk; bids until Nov. 14; $50,000 city hall; 2 stories; brick, stone, concrete and frame; plans from office J. Rice Scott & Co., Archts.-Engrs., Grand Opera House Bldg. (Lately noted.)

N. C., Wadesboro—City Hall.—City Commrs. will issue $75,000 bonds to include $20,000 for city hall, etc.

Okla., Cushing—City Hall and Fire Equipment.—City; vote on $40,000 city hall and $10,000 fire equipment bonds.

Okla., Cushing—City Hall.—City voted $40,000 city-hall bonds and $10,000 for auto fire truck. Address The Mayor.

Okla., Shawnee—Fire Stations.—City; 2 fire stations; 1 story. Address The Mayor.

Tex., Dallas—Home.—Dallas County votes Nov. 4 on $150,000 to erect parental home for girls and boys. Address County Commrs.

Tex., Fort Worth—Equipment Building.—Tarrant County Commrs.; $15,000 building; R. A. Nicolais, Archt.

Courthouses.

Ga., Pearson. — Atkinson County; $100,000 courthouse and jail building; bids open Nov. 17; J. J. Baldwin, Archt., Anderson, S. C.; Jeff Kirkland, Chrmn. County Commrs.

Miss., Belzoni.—Humphries County; $200,000 fireproof courthouse; Kramer & Lindsley, Archts., Jackson, Miss.

Kan., Girard.—Crawford County Commrs.; $300,000 courthouse; Tonini & Bramblet, Archts., Terminal Bldg., Oklahoma City, Okla.

Dwellings.

Ala., Birmingham.—Chamber of Commerce, Paoli Smith, Secy.; promoting organization of housing corporation.

D. C., Washington.—Jno. W. Thompson & Co.; number of dwellings in Avenue Heights Subdivision; $12,000 to $20,000 each.

D. C., Washington.—Geo. E. Sullivan, 416 5th St.; $30,000 residence, Hamilton and Pinney Branch Road; 3 stories; 36x59 ft.; hollow tile; stone trim; Geo. T. Santmyers, Archt., Maryland Bldg.; owner taking bids.

D. C., Washington.—Harry A. Kite, 1338 G St. N. W.; 8 dwellings, 39th and Yuma Sts. N. W.; 2 stories; frame; $64,000; plans and construction by owner.

Fla., St. Petersburg.—Bankers' Home Building Corp. chartered; $100,000 capital; Wm. E. Poole, Prest.; number of dwellings.

Ga., Americus.—Mrs. C. B. Broadfield; residence.

Ga., Decatur.—Jones, Ramspeck & Co.; 8 dwellings; $50,000.

La., Lake Charles.—Flora A. Jones; dwelling; contemplated.

Md., Baltimore. — Broring Building Co., 28th St. and Tivoly Ave.; 25 daylight dwellings on Belair Rd. north of Herring Run; 2 stories; brick; $60,000; plans and construction by owner.

Md., Baltimore.—Alvin Greif; 2-story residence; 30 to 35x90 ft.; stone; slate roof; wood floors; steam vapor heat; considering bids; Smith & May, Archts., 1133 Calvert Bldg.

Md., Baltimore.—Minnie B. Dawson, Pittsburgh and Washington; purchased site on Reisterstown Rd. and Oakmont Ave.; erect about 200 daylight dwellings; Caughy, Hearn & Co., 218 Lexington St., Agts. for former owners.

Md., Baltimore.—Kahn & Brownstein Realty Co., 39 South St.; 300 dwellings at West Densmore Park to be completed within 2 yrs.; 8 rooms; daylight type; hardwood floors; 2 2x 34 ft.; $1,250,000; construction on 21 to begin this week. (West Densmore Development Co. lately noted to erect these dwellings.)

Md., Baltimore.—Rose Hill Realty Co.; 14 dwellings on Old Pimlico Rd.; brick; 2½ stories.

Md., Baltimore.—Jno. S. Gibbs; alteration and addition to stone residence; 2 wings; slate roof; extend heating; 2 tile porches; hardwood floors in wings; bids opened Oct. 22; Mottu & White, Archts., 322 N. Charles St.; constractors estimating: Frainie Bros. & Haighley, 18 Clay St.; Hicks, Tase & Norris, 106 W. Madison St.; G. Walter Tovell, Eutaw and McCulloh Sts.; D. M. Andrew Co., Mt. Vernon Ave. and 26th St.; J. Roystone Engineering Co., Munsey Bldg.; Willard E. Harn Co., 2314 Oak St.

Md., Chevy Chase. — Wm. G. Carter; 2½ shingle roof; wood floors; $14,000; heating plant, $700; electric lighting, $200; J. E. Lyles, Archt., 734 8th St. N. W., Washington, D. C., receiving bids.

Md., Cumberland. — W. Glisan; $10,000 residence; 3 stories; 35x42 ft.; frame; F. Sansbury, Archt.; owner taking bids.

Miss., Clarksdale.—J. S. Whiting, Farrell, Miss.; $15,000 residence.

Mo., Freistatt.—Mary Raithel; $10,000 residence; 1 story and basement; frame and stucco; composition roof; Heckenlively & Mark, Archts., Landers Bldg., Springfield, Mo.

Mo., Jefferson City.—Commercial Club organized; $200,000 capital; dwellings; R. Dallmeyer, Hugh Stevens and others, Comm.

Mo., Kansas City.—J. R. Miner, 61st and Penn Sts.; 4 dwellings; 2 stories and basement; 28x40 ft.; frame; shingle roof; $16,000; construction by owner.

Mo., Kansas City.—A. L. Huber Construction Co., 420 N. Elmwood Ave.; 14 bungalows in Rock Hill Ridge; Geo. Phelps, 6822 Agnes Ave., contract for masonry.

Mo., St. Louis.—Laclede-Christy Clay Products Co., 611 Olive St., reported to erect 25 dwellings at Kings Highway and Bancroft Ave.; 1½ stories; 24x30 ft.; brick. (Henry Wright, Chemical Bldg., lately erroneously reported as architect.)

Mo., St. Louis.—Dan Mullen, Archt., Clayton Bank Bldg., Clayton, Mo.; $15,000 residence, Southmore Park; brick; 2½ stories; 34x42 ft.; taking bids.

Mo., St. Louis.—Joseph P. O'Toole; 5 bungalows in Tower Grove Heights; 6 rooms and sleeping porch.

Mo., St. Louis.—R. L. Hall; 2 bungalows in Richmond Heights; brick; 6 rooms with sunparlor.

Mo., St. Louis.—E. O. Porter, Archt., 408 Merchants-Laclede Bldg.; $15,000 residence and garage, 6320 McPherson Ave.; 41x42 ft.; fireproof; reinforced concrete; composition roof; tile and wood floors; hot-water heat; $1300; construction sublet.

Mo., Union.—John C. Jacobs, Supt. Hamilton-Brown Shoe Co.; 50 dwellings.

N. C., Chimney Rock.—Chimney Rock Co.; several bungalows. (See Hotels.)

Okla., Bristow.—B. F. Curran; 2 residences; $11,000; 32.6x46.8 ft.; concrete; brick veneer and stucco; asphalt shingle roof; hot-air heat; electric lights; plans and construction by owner. (Lately noted.)

Okla., Frederick.—A. H. Krause; $14,000 residence; 2 stories and basement; 31x38 ft.; brick veneer; shingle roof; Nichols & Chandler, Archts., Southwest Reserve Bank Bldg., Oklahoma City.

Okla., Oklahoma City.—Dr. T. C. Nichols; $10,000 dwelling; 2 stories and basement; 28x32 ft.; frame; shingle roof; Monnot & Reid, Archts., Empire Bldg.

Okla., Oklahoma City.—Mrs. Hugh Stonum; $10,000 residence; 2 stories and basement; 26x42 ft.; frame; shingle roof; Nichols & Chandler, Archts., Southwest Reserve Bank Bldg.

Okla., Oklahoma City.—C. E. Hoffman; fifteen 1-story frame dwellings; $60,000.

Okla., Tulsa. — Theodore Cox; $20,000 residence and garage; 29x51 ft.; brick veneer; shingle roof; hot-air heat; Courtland S. Butler, Archt., Kennedy Bldg.; construction by owner.

S. C., Columbia.—A. R. Heyward; $10,000 residence at Wales Gardens.

Tenn., Chattanooga.—Chamber of Commerce promoting Chattanooga Housing Corp.; $500,000 capital; plans number of dwellings; J. D. Alsup, Chrmn. Committee on plans.

Tenn., Columbia.—Adkisson Bros.; rebuild boarding-house noted damaged by fire at loss of $12,000.

Tex., Abilene. — Henry Sayles, Jr.; $12,000 dwelling; 2 stories and basement; 30x42 ft.; frame; shingle roof; Nichols & Chandler, Archts., Southwest Reserve Bank Bldg., Oklahoma City.

Tex., Houston.—Hurlock Realty Co.; three 6-room dwellings; $12,000.

Tex., Snyder.—Jno. G. Davis; residence near Snyder.

Tex., San Antonio.—J. H. Holmgreen; 9-room hollow-tile residence; Ralph H. Cameron, Archt.

Tex., San Antonio.—J. F. Blair; 2-story 8-room residence; Ralph H. Cameron, Archt., receiving bids.

Tex., Pearsall.—E. M. Howard; dwelling; contemplated.

Va., Bristol.—Walter H. Robertson; $10,000 residence; colonial design.

Va., Bristol.—Jim Dougherty; $10,000 bungalow; brick.

Va., Bristol.—J. D. Foust; $10,000 bungalow.

Va., Lynchburg.—Chas. H. Wills; $10,000 residence; 36x46 ft.; 1½ stories; brick; Craighill & Cardwell, Archts., People's Bank Bldg.

Va., Richmond.—Blanchard Forbes, 801 W. Franklin St.; $30,000 residence; brick and stucco; 2½ stories; 52x68 ft.; Hallett & Pratt, Archts., Mutual Bldg.

Va., Salem.—J. S. Perrow; several dwellings in Perrow addition; 9 rooms; frame and stucco; asphalt-shingle roofs; oak floors; $3000 each; pipeless furnace, $225; city lights. (Lately noted.)

Va., Salem.—Mrs. W. Harveycutter; 3 or 4 bungalows; contemplated.

Va., Salem.—Mrs. May B. Cooper; 4 bungalows.

W. Va., Charleston.—Ben Baer; $10,000 residence; 58x53 ft.; 1½ stories; frame and stucco; W. F. Davidson, Archt., 1452 Lee St.

W. Va., Charleston.—Johnson & White; 3 residences; brick and tile; 2 stories; 8 rooms; $4000 each.

W. Va., Lumberport.—Hutchinson Coal Co., Fairmont; will not erect dwellings at Robey Mine as lately reported.

Government and State.

Ark., Marianna—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.; opened bids to erect postoffice; W. D. Lovell, Minneapolis, Minn., low bidder. (Lately noted.)

D. C., Washington — Storehouse. — United States Engineer's Office, Room 305, Southern Bldg.; bids until Oct. 25 to erect extension to storehouse in Potomac Park; information upon application.

Mo., St. Louis—Auditors' Offices.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.; alterations to Auditor's office at United States Customhouse; Wm. McDonald Construction Co., St. Louis, lowest bidder. (Lately noted.)

Tex., Fort Sam Houston—Warehouses.—Construction Division, Quartermaster's Dept., Washington, D. C.; temporary warehouses; 725,000 sq. ft. floor space; sheet-metal walls and roofs; concrete floors; Col. M. R. Hilgard, Southern Department Quartermaster, Fort Sam Houston.

Tex., Corsicana—Dormitory.—State Orphans' Home, J. S. Callicut, Prest.; $100,000 fireproof building; bids opened Oct. 22, including heating, plumbing and wiring; C. H. Page & Bro., Austin, and H. O. Blanding, Corsicana, Archts. (Previously noted.)

Va., Cape Henry—Fort Construction.—Constructing Quartermaster, Fortress Monroe, Va.; bids until Nov. 1 for additional construction at Fort Story in accordance with plans Nos. 83, type H., 620, 313, 314, 316, 317, 325, 329, 330, 347, 350, 351, 352 and 367, and 6562 and 101 and specifications accompanying project

symbol 4009 and 4013; plans and specifications from Constructing Quartmaster, Main Wharf, Fortress Monroe.

Hospitals, Sanitariums, Etc.

Ala., Tuscaloosa.—Dr. T. H. Patton; convert residence into sanatorium; considering erection of building.

Ga., Savannah. — Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.; bids until Oct. 28 to remodel Marine Hospital; drawings Nos. 71 and 72, copies of which obtainable from Custodian at Savannah or from office Supvr. Archt.

Md., Baltimore. — Johns Hopkins Hospital, Dr. Winford H. Smith, Supt.; plans to erect 4-story building as department for women; construction in spring.

Md., Easton. — Talbot County Chapter American Red Cross; $20,000 nurses' home at Emergency Hospital; Francis G. Wrightson, Prest.

Miss., Greenville.—Mrs. Edmond Taylor, interested in erection of hospital.

Mo., Fayette.—Howard County: defeated $75,000 hospital bonds. Address County Commissioners. (Previously noted.)

N. C., Dunn.—Ernest F. Young, J. D. Barnes and others; promoting $100,000 hospital.

Hotels.

D. C., Washington. — Edward H. Everett, Richmond Hotel; reported interested in erection of hotel on 17th St., Connecticut Ave., H St. and Farragut Sq.; $5,000,000.

Fla., Oldsmar.—Geo. Selby; improve Wayside Inn.

Ky., Crab Orchard.—Crab Orchard Springs Hotel Co.; remodel hotel; 100,000; construction begins Nov. 15. (Previously noted.)

Ky., Middlesborough. — Chamber of Commerce; promoting plans for $150,000 hotel; 5 stories; 110 to 115 rooms, with bath.

N. C., Chimney Rock.—Chimney Rock Co., Dr. L. B. Morse, Prest., Hendersonville, N. C.; enlarge dining pavilion; erect assembly building and several cottages; frame; 3-ply rubber roof; wood floors; hot-water circulating system; electric lights; $10,000; Earl Stilwell, Archt., Hendersonville. Address owner. (Lately noted under Dwellings.)

N. C., High Point.—H. W. Kronheimer interested in organization of corporation to erect 100-room hotel.

N. C., Hot Springs.—Fred J. Fuller; remodel, repaint, build extension to hotel; $60,000; day labor. Address Mountain Park Hotel. (Lately noted.)

Okla., Devol.—Liberty Hotel; $100,000 building; 90x130 ft.; 3 stories and basement; brick; 1st floor to have lobby 20x98 ft., baggage and checkrooms 20x22 ft., dining-hall 33x64 ft.; 2d floor, ladies' parlor and lobby and 44 bedrooms; 3d floor, 48 bedrooms; J. T. Craighead, Archt.

Okla., Tulsa.—W. O. Mitchell; $25,000 improvements to 5-story building for hotel.

S. C., Edgefield.—Dixie Highway Hotel Co., J. C. Sheppard, Prest.; 2-story building; 32 rooms; store on first floor; bids until Nov. 1. (Previously noted.)

Tex., Amarillo.—Ernest Thompson; 7-story fireproof building; steel, brick and concrete; 185 rooms, with private bath; Turkish bath and swimming pool in basement. (Lately noted.)

Tex., Breckenridge. — Breckenridge Hotel Co.; C. E. Cooper, Secy.; 5-story hotel; 135 rooms and bath; fireproof.

Va., Martinsville.—Hamilton Hotel; $50,000 building; 3 stories; brick; E. R. James, Archt., Dudley Bldg., Danville, Va.

Va., Norton.—Norton Hotel (F. D. Kline and others); $100,000 hotel; 6 stories; steel skeleton frame; brick; limestone trim; Copenhaver & Day, Bristol, Va., estimating; Thos. S. Brown, Archt., Bristol. (Previously noted.)

Miscellaneous.

Fla., Crescent Beach—Amusement.—Crescent Beach Co., S. F. Hamill, Prest.; bathhouse and amusement pavilion.

Fla., St. Petersburg—Clubhouse.—Coffee Pot Gulf Club (C. Perry Snell and others); clubhouse; 1 story; 240 lockers; also 9-hole golf course.

Ga., Cordele—Barn—Thomas Nesbitt; rebuild dairy barn noted damaged by fire at loss of $20,000.

Mo., St. Joseph—Clubhouse.—Green Hills Golf Club; clubhouse and 18-hole golf course.

Tex., Orange—Home.—Home Service Committee, F. H. Farwell, Chrmn.; army home.

Tex., Corpus Christi—Bathhouse.—M. Peterson, Venus, Cal.; rebuild North Beach Bathhouse recently damaged by storm.

Railway Stations, Sheds, Etc.

La., Shreveport. — Kansas City, Southern R. R., J. M. Weir, Ch. Engr., Kansas City, Mo.; $250,000 passenger terminal.

Schools.

Ala., Birmingham.—Jefferson County Board of Education; $35,000 high-school building in Dist. 6-A (Palos, Bessie, Porter and Flat Top); school in Dist. 14-A (Dolmite, Hueytown and Concord).

Ark., Mammoth Spring.—School Board; 2-story and basement building; 70x100 ft.; Geo. F. Reed, Archt., Springfield, Mo.

Fla., Micanopy. — Allachua County School Board; brick high school in Special Tax Dist. No. 15; 2 stories; T. M. Bryan, Archt., P. O. Box 275, Gainesville, Fla.

Ga., Cordele.—City votes Nov. 18 on $50,000 high-school bonds. Address Board of Education.

La., Ajax. — Parish School Board, Natchitoches, La.; ordered election on $35,000 bonds in District No. 3 to erect building.

La., New Iberia.—School Dist. No. 6; voted $200,000 bonds; buildings; L. R. Tilly, Secy. Parish School Board. (Lately noted to erect $125,000 structure.)

Mo., Columbus.—School Dist.; voted $15,000 bonds. Address Dist. School Trustees.

Md., Baltimore.—City; school building at Poplar Grove St. and Lafayette Ave.; E. H. Glidden, Archt., American Bldg.; construction under supervision of Building Inspector, City Hall. (Previously noted.)

Miss., Long Beach. — Gulf Hart College; building for girls; Rathbone De Buys, Archt., Hibernia Bldg., New Orleans.

Miss., New Augusta.—New Augusta Consolidated School Dist. voted $150,000 bonds to erect buildings. Address Dist. School Trustees. (Lately noted.)

Miss., Scooba.—Kemper County Agricultural High School Trustees; $35,000 administration building; 60x90 ft.; brick; metal shingle roof; wood floors; steam heat, $4000; city lights; Kramer & Lindsley, Archts., Jackson, Miss. Address H. L. Simmons, Scooba.

Mo., Clyde. — Board of Education; $30,000 school; 2 stories and basement; 50x75 ft.; Ludwig Abt, Archt., Moberly, Mo.; day labor.

Mo., Kansas City.—Board of Education, J. B. Jackson, Jr., Library Bldg.; 17-room school, 45th and Wabash Aves.; brick; stone trim; C. A. Smith, Archt., Finance Bldg.

Mo., Richmond.—School Dist. votes Oct. 21 on $10,000 bond issue to erect gymnasium for high school; B. E. Shotnell, Clk. (Lately noted.)

Mo., St. Charles.—Lindenwood College, Dr. Jno. L. Roemer, Prest.; $300,000 administration building; Louis Le Beaume, Archt., Chemical Bldg., St. Louis.

Mo., St. Louis.—Linwood College, Dr. Jno. L. Roemer, Prest.; $300,000 administration building; 175x90 ft.; ultimate plans call for $1,000,000 expenditure, to include remodeling Sibley Hall, building dormitory, power-house and improvements to 4 main buildings.

Mo., St. Louis. — Washington University, Frederic A. Hall, Chancellor; $300,000 addition; granite and stone; Jas. P. Jamieson, Archt., Security Bldg. (Previously noted.)

N. C., Durham.—City Board of Education; considering election on $650,000 school improvement bonds; addition to Edgemont School, erection of negro school and high school. E. D. Pusey, Supt. of Schools.

N. C., Lexington. — City votes Nov. 25 on $75,000 bonds for school buildings. Address The Mayor.

N. C., Oxford.—School Board; $50,000 high school; brick; wood floors.

Okla., Arcadia.—Board of Education, D. W. Fowler, Clk.; $30,000 building; 2 stories and basement; 70x70 ft.; brick and stone; gravel roof; bids until Oct. 22: The Huseman Co., Archt., Oklahoma Bldg., Oklahoma City.

S. C., Greenville.—Standing Springs School Dist. Trustees; building; issue bonds.

S. C., Laurens.—City; vote on $250,000 bonds to include $125,000 for schools; C. H. Roper, Secy. Board of Trustees. (Lately noted.)

Tex., Fort Worth. — Texas Christian University; $80,000 building for University Church, Rev. W. P. Jennings, Pastor; gift of Rev. and Mrs. A. C. Parker, 3426 Beverly Drive, Dallas; also plans to expend $190,000 to erect dormitory, library and gymnasium.

Tex., Gonzales.—School Dist.; voted $29,250 bonds. Address Dist. School Trustees.

Tex., Waxahachie.—City voted $295,000 bonds for school building, park improvements, street paving and water and sewer extensions. Address The Mayor.

Tex., Wichita Falls.—School Board; high school and other structures; $100,000.

Va., Lynchburg. — Brookville Dist. School Board, Jno. T. Adkins, Clk., 921 Main St.; grade school at Fort Hill; 2 stories and basement; 56x84 ft.; brick; Spanish tile roof; rift pine and concrete floors; steam heat; ventilating system; city lights; ready for bids Oct. 20; tSanhope S. Johnson, Archt., People's Bank Bldg. (Previously noted.)

Va., Lynchburg. — Brookville Dist. School Board; building in Rivermont Section; 56x84 ft.; brick; Spanish tile roof; rift pine and concrete floors; steam heat; ventilating system; city lights; bids opened Oct. 29; Stanhope S. Johnson, Archt., People's Bank Bldg.

W. Va., Huntington.—Board of Education; schools; election Nov. 15 on $645,000 bonds.

W. Va., Union.—Board of Education, Harry Shaw, Prest.; East Side High School.

W. Va., Walker.—Walker Dist. Board of Education; $12,000 high school; vote Oct. 25 on bonds.

Stores.

Ark., Helena. — Joseph Solomon; $100,000 store and office building; 3 stories; brick; Joseph & Joseph, Archts., Atherton Bldg., Louisville, Ky. (Lately noted.)

Ark., Blytheville.—P. B. Douggan; 2-story brick store and office building.

Ark., Little Rock.—Leveck & Son; 2-story brick building; $17,000.

Ark., Springdale.—Benton County Hardware Co., Rogers, Ark.; $18,000 building; 2 stories and basement; 44x107 ft.; brick and stone; composition roof; day work; Heckenlively & Mark, Archts., Landers Bldg., Springfield, O.

D. C., Washington. — H. S. Landy, 839 Shepard St. N. W.; store and apartment building, Shepard St. and Georgia Ave. N. W.; Geo. T. Santmyers, Archt., Maryland Bldg.; owner receiving bids.

Fla., Jacksonville. — O. P. Woodcock has permit to erect $16,000 building.

Fla., Jacksonville. — G. S. Warren; $40,000 alterations to building.

Fla., Perry.—Burton Swartz Cypress Co.; 2-story frame store building; 60x120 ft.; T. M. Bryan, Archt., P. O. Box 275, Gainesville, Fla.

Ky., Middlesborough.—Dr. W. K. Evans; $15,000 store and office building, Cumberland Ave.; 2 stories; brick.

La., Oberlin.—J. D. Marcantel; $10,000 brick building; 1 story; 30x80 ft.; P. Oliver & Son, Contrs.; Phillips & McCook, Archts., both Lake Charles, La.

Mo., Kansas City. — Edward Austin, 3910 Penn St.; $12,000 building; 1 story and basement; 49x132 ft.; brick; stone trim; composition roof; C. M. Williams, Archt., 404 Grand Ave. Temple Bldg.; construction by owner.

N. C., Burlington.—Central Loan & Trust Co.; several additional 2-story, brick business buildings. (H. F. Mitchell, previously noted having contract for structure.)

Okla., Oklahoma City.—H. N. Knight; $20,000 building; 1 story; 50x170 ft.; brick and stone; Monnot & Reid, Archts., Empire Bldg.

Okla., El Reno.—M. N. Wilson; $25,000 improvements to business building; 2 stories; brick and tile. Address Layton, Smith & Forsyth, Archts., 401 Southwest Reserve Bank Bldg., Oklahoma City. (Lately noted.)

Okla., Bristow.—B. F. Curran; store and office building; 75x125 ft.; construction begun.

Okla., Oklahoma City.—Reinhart & Donavan Co.; $29,500 store.

S. C., Gaffney.—L. Baker; 3 or more buildings.

Tex., Eastland.—J. L. Lancaster; 3-story brick business building.

Tex., Houston. — H. C. House; 6-story building; steel and reinforced concrete; 58x100 ft.; leased by Harris & Hahlo.

Tex., Palestine. — A. L. Bower and Jno. Coombs; remodel building; plate-glass fronts; occupied by Davis & Son.

Tex., San Antonio.—August A. Herff Co., Archt.; series of 1-story reinforced concrete fireproof stores at S. Alamo and Garden Sts.

Va., Newport News.—Dr. E. E. Smith, 2507 Jefferson Ave.; $14,000 store and electric laboratory; 2 stories; 25x90 ft.; brick and terra-cotta; Hatton & Co., Archts., 1200 U St. Washington, D. C.; construction by owner.

Va., East Radford.—S. J. Fisher; building to replace burned structure.

Va., Lynchburg.—Judge F. P. Christian, 412 W. Madison St.; $10,000 building; 2 stores; brick, 34x54 ft.; 2 stories; Craighill & Cardwell, Archts., People's Bank Bldg.

Va., Richmond. — B. Sharofsky, 693 Brook Ave.; remodel store; $10,000; 3 stories; brick; Chas. H. Phillips & Co., Archts., American Bank Bldg.

W. Va., Huntington. — Groves Thornton Hardware Co., H. A. Groves, Prest.; brick building.

W. Va., Welch.—Hill Motor Co.; store and office building; 105x25 ft.

W. Va., Welch.—McDowell County Wholesale Co.; building; A. V. Wooten, Huntington, contract for excavation.

Theaters.

Ala., Gadsden.—Will B. Wood; moving-picture theater.

Ky., Ashland.—Columbia Amusements Co., Dick Martin, Mgr.; theater; seating capacity 1500.

Ky., Corbin.—Corbin Amusement Co., T. W. Gallagher; $25,000 theater; 2 stories; brick and concrete; composition roof; cement floor; fan blast system of steam heat; bids opened Oct. 25; C. C. & E. A. Weber, Archts., Miller Bldg., Cincinnati, O.

La., Monroe.—Saenger Amusement Co., Tulane Ave. and Liberty St., New Orleans; theater; $200,000 to $250,000 theater, including site; plans completed.

Va., Norfolk.—Allan G. Burrow; reported to erect $300,000 moving-picture theater to be known as Broadway; seating capacity 2400; 25-ft. foyer; leased by R. D. Craver, Charlotte, N. C., and Jno. F. Pryor, Danville, Va.

Warehouses.

Ala., Albany. — Hughes & Tidwell; $10,000 cotton warehouse; reinforced concrete; fireproof; 47x100 ft.; Baxter Bros., Contr.

Ga., Augusta. — Southern Candiet Sweet Potato Co.; $50,000 warehouse; 1 story; brick; 50x200 ft.; cement floors; metal sash and ceilings; composition shingle roof; Thos. M. Campbell, Archt., Johnson Bldg.

Ga., Valdosta.—Chamber of Commerce promoting erection of tobacco warehouse and prize houses.

Ky., Lexington.—D. T. Bohon & Co.; warehouse. (See Bank and Office).

Mo., North Kansas City.—Russell Grader Manufacturing Co., Minneapolis, Minn.; warehouse and office building; 1 story and basement; 96x113 ft.; brick; stone trim; composition roof; Ludwig, Sund & Dunham, Archts., Minneapolis.

Mo., St. Louis. — Pere College Co., A. E. Malone, Prest.; 2-story warehouse; 70x85 ft.; brick; fireproof; Wm. P. MacMahon, Archt., Wainwright Bldg., taking bids.

N. C., Wilson.—O. R. Bell, Augusta, Ga.; tobacco warehouse.

S. C., Clinton.—Clinton Cotton Mills; reinforced concrete warehouse and opener-room; 100x132 ft.; equipped with fire protection apparatus; machinery electrically driven; J. E. Sirrine, Archt.-Engr., Greenville, S. C.

S. C., Greenville.—Greenville Storage Warehouse Co.; $100,000 capital; Geo. B. W. Hadley, Mgr.; warehouse.

S. C., Greenville.—Chester M. Goodyear Co., Chester M. Goodyear, Mgr.; 10 warehouses; 100x50 ft.; probably concrete and brick, mill construction; J. E. Sirrine, Archt.-Engr.

Tenn., Memphis.—Libby, McNeill & Libby, Chicago; reinforced concrete warehouse; 68x128 ft.; asbestos built-up roof; flat slab floor construction; open conduit lighting system; 4000-lb. drum type electric elevator, 7x7 ft.; bids opened about Oct. 27; Philip Larmon, Archt., care owners. Address F. Britton, care Libby, McNeill & Libby. (Lately noted.)

Tex., Eastland.—Lucey Manufacturing Co.; warehouse.

Tex., Houston. — Pittsburgh Plate Glass Co.; 3-story building; reinforced concrete and brick; install loading and unloading cranes, sprinkler system, etc.

Va., Bristol.—Interstate Hardware Co.; rebuild old Burson Hotel for warehouse; 4 stories; reinforced concrete; foundation; electric freight elevator.

Va., Richmond. — W. Fred Richardson Security Storage Co., W. F. Richardson, Prest.; $150,000 storage warehouse; 7 stories; 89x78 ft.; fireproof; C. M. Robinson, Archt.; Albert Witte, Const. Engr.

BUILDING CONTRACTS AWARDED

Apartment-Houses.

Fla., Miami.—H. O. Shaw, Box 574; $17,500 apartment-house lately noted; 38x54 ft.; concrete block; 4-ply built-up composition roof; pine floors; W. P. Brian, Contr., Arch Creek, Fla. (See Machinery Wanted—Ranges and Heaters.)

Ky., Louisville.—Mrs. M. P. Eudy; convert residence into apartment-house. (See Bank and Office.)

Mo., St. Louis.—R. Meyer, 6400 Southwest Ave.; 2-story tenement; 43x53 ft.; hot-water heat; H. Nahmensen, Contr., 6430 Arsenal Ave.

Mo., St. Louis.—Anna Mueller; 6-family apartment-house on Oakland Ave.; Junius Chapman, Contr.; construction under supervision Jno. C. Greulich Realty & Investment Co.

Okla., Oklahoma City.—Chas. Derr; apartment-house; 2 stories and basement; 60x64 ft.; A. L. D. Wharton, Contr., 1511 W. 7th St.

Va., Richmond.—Bellevue Park, Chas. H. Hatzler, Prest., 2510 W. Main St.; $100,000 apartment-house; 4 stories; 70x209 ft.; 27 apartments; L. O. Spiers, Archt.; Davis Bros., Contrs., both 2510 W. Main St.

W. Va., Clarksburg.—Mrs. N. Baker; $25,000 apartment building; 3 stories; 55x48 ft.; tapestry brick; 2 porches on each apartment; incinerators; vacuum cleaners, etc.; S. W. Ford, Archt.; D. B. Hudkins, Contr. on percentage basis. (Lately noted.)

Association and Fraternal.

Alfred Struck Co., Contr.; heating and lighting reserved by architects. (Lately noted under Apartment-Houses.)

Mo., Buckner.—Bank of Buckner; building; 1 story and basement; 32x65 ft.; brick; stone trim; Geo. Cope & Son, Contrs., 4800 Oak St.; Owen & Payson, Archts., Reliance Bldg. (Previously noted.)

S. C., Columbia.—Pacific Mills; remodel Y. M. C. A. (See Stores.)

Tex., El Paso.—Two Republics Life Insurance Co., A. H. Rodes, Prest.-Gen. Mgr.; $200,000 building; 8 stories and basement; 120x86.8 ft.; reinforced concrete frame; red rug brick exterior; terra-cotta trim; 7 stories for offices; Trost & Trost, Archts., J. E. Morgan, Contr. (Lately noted.)

Va., Portsmouth.—Woodmen of the World; $60,250 building; 60x111 ft.; fireproof; brick; Indiana limestone trim; Barrett specification roof; reinforced concrete floors; C. M. Major, Archt., 406 Crawford St. Address H. M. Lucas, Contr., 115 Maple St. (Lately noted.)

Bank and Office.

Ky., Louisville.—Mrs. M. P. Eudy; $70,000 office building and apartment-house; former 62x50 ft.; 3 stories; reinforced concrete; brick walls; composition roof; tile and concrete floors; convert residence into apartment-house; D. X. Murphy & Bro., Archts.

Mo., Bernie.—Bank of Bernie; $30,000 build-

ing; 1½ stories and basement; 40x96 ft.; Gassman Construction Co., Contr., Charleston, Mo.

Mo., Kansas City.—Frank L. Spaulding, San Diego, Cal.; $75,000 addition to office building; 2 stories; 48x126 ft.; Fogle Construction Co., Contr., Reliance Bldg.; F. H. Michaelis, Archt., Ridge Arcade. (Lately noted.)

Okla., Devol.—Oklahoma State Bank; $10,000 building; 2 stories; 25x60 ft.; E. B. C. Wright, Contr.; J. T. Craighead, Archt. (Lately noted.)

Tenn., Memphis.—Union Seed Fertilizer Co.; expend $350,000 to erect mill building, hull, seed, meal and office buildings; principally brick and steel; Raymond B. Spencer, Archt., Goodwyn Institute Bldg.; J. C. Barker, Contr.

Tex., Fort Worth. — Farmers & Mechanics' National Bank; $1,500,000 building; 100x95 ft.; 24 stories; steel frame, terra-cotta and brick; composition roof; reinforced concrete floors; heating and lighting not determined; 1-and-1 traction elevator; Sanguinet & Staats, Fort Worth, and Mauran, Russell & Crowell, St. Louis, Associate Archts. Address Westlake Construction Co., Contr., Railway Exchange Bldg., St. Louis. (Previously noted.)

Va., East Radford.—Farmers and Merchants' Bank; $27,000 building; brick; 2 stories; Miller & Calhoun, Contrs., Christiansburg, Va.; Thos. S. Brown, Archt., Bristol, Va. (Previously noted.)

Va., Hot Springs.—Bath County National Bank, Wm. McAllister; building; 40x50 ft.; tile walls and stucco; Johns-Manville roof; wood floors; Wills Egelhof Co., Contr., 101 Park Ave.; Warren & Clark, Archts., 108 E. 29th St.; both New York City.

Churches.

La., Shreveport.—Highland Baptist Church; $125,000 building; English-gothic type; 3 stories; 60x100 ft.; brick and Oolithic stone; wood floors; hot-air heat; seating capacity 1500; Central Construction Co., Contr., Houston, Tex.; C. W. Bulger, Archt., Praetorian Bldg., Dallas. (Previously noted.)

Mo., Springfield.—Trinity Lutheran Church; $12,000 building; 54x33 ft.; brick, tile and stone; composition roof; pine floors; electric lights; cement sidewalks; H. J. Burgdorf, Archt., 2604 Virginia Ave., St. Louis; contract let. Address A. F. Woker, 1260 Summit Ave., Springfield. (Lately noted.)

N. C., Charlotte.—St. Mark's Lutheran Church; $40,000 Sunday-school building; 40x80 ft.; ordinary construction; slate roof; tile and wood floors; heating, $5000; lighting, $1000; Louis H. Asbury, Archt., Realty Bldg.; J. H. Deal, Contr. (Lately noted.)

City and County.

Fla., Daytona Beach—Auditorium.—Daytona Beach Auditorium Assn.; $35,000 building; 104x138 ft.; frame; built-up roof; wood floors; city lighting; Chas. R. Weatherhogg, Archt., Fort Wayne, Ind.; Fuquay & Gheen, Contrs., Daytona Beach. (Lately noted.)

Courthouses.

Mo., Jefferson City.—Cole County Commissioners; interior work at courthouse; $47,443; Louis G. Schell, Contr.; F. B. Miller, Archt. (Previously noted.)

Dwellings.

D. C., Washington.—Geo. H. Laleger, 1600 1st St. N. W.; 4 dwellings, 2801-07 13th St. N. W.; 2 stories; 24x30 ft.; $22,000; T. L. McArdle, Contr., 1238 Irving Ave. N. W.

Ga., Harlem.—F. E. Lamkin; $10,000 frame and brick bungalow; composition shingle roof; C. E. Lazenby, Contr.; T. M. Campbell, Archt., Augusta.

Mo., Springfield. — L. W. Reps., Reps Dry Goods Co.; $25,000 residence; 30x70 ft.; brick; slate roof; tile and hardwood oors; electric lights; heating not in general contract; Earl N. Hawkins, Archt., Holland Bldg.; Springfield Planing Mill, Lumber & Construction Co., Contr. (Lately noted.)

N. C., Gastonia.—Loray Mill; 30 dwellings; $50,000; also dormitory and cafe; C. H. Clement Co., Contr., Charlotte.

Okla., Oklahoma City.—M. H. P. Derr; $12,000 dwelling; 2 stories and basement; 28x40 ft.; A. L. D. Wharton, Contr., 1511 W. 7th St.

Okla., Oklahoma City.—Dr. I. G. Bloomfield; $12,000 residence and garage; 2 stories and basement; 50x36 ft.; J. F. Chase, Contr.

Okla., Oklahoma City.—Mr. Watkins, 1426 W. 35th St.; $10,000 residence; 2 stories and basement; 28x40 ft.; C. E. Huffman, Contr., 1122 W. 1st St.

Tex., Fort Worth.—Mrs. Wm. G. Newby, 2709 Hemphill St.; 2 bungalows on Magnolia Ave.; brick; shingle roof; hardwood, double floors; 8 rooms; gas and flue heat in each room; electric lights; Mr. Spicer, Archt.; Wm. McDonald, Contr. (Lately noted.)

Va., Petersburg. — J. McTalley; $10,000 bungalow; 30x54 ft.; 1 story; Harrison Construction Co., Contr., Mechanics' Bldg.

Va., Bristol. — Judge R. L. Pennington; $20,000 residence; 60x76 ft.; brick and tile; tile roof; wood and concrete floors; steam or hot-water heat, $1000; electric lights; H. Doriot, Archt.; W. J. Arnold, Contr. (Previously noted.)

W. Va., Charleston.—W. K. Holmstead; $15,000 residence; 2 stories; hollow tile; 10 rooms; Wallace Knight, Archt. and Contr.

W. Va., Fairmont. — Fairmont Mining Machinery Co.; number of dwellings; Jas. M. Boyle, Engr., 14 Wall St., New York; Dreher, Churchman, Paul & Ford, Archts., 1424 Walnut St., Philadelphia; Fredk. T. Ley & Co., Contrs., Springfield, Mass. (Lately noted.)

W. Va., Fairmont.—West Virginia Metal Products Corp., J. E. Watson, Prest.; 56 dwellings; frame; slate roof; wood floors; Dreher, Churchman, Paul & Ford, Archts., Philadelphia; Fred T. Ley & Co., Contrs., New York. Address Contrs. at Fairmont. (Lately noted.)

W. Va., Fairmont.—Pleasant Valley Homes Co.; number of residences; Dreher, Churchman, Paul & Ford, Archts., 1424 Walnut St., Philadelphia; Jas. M. Boyle, Engr., 14 Wall St., New York; Fredk. T. Ley & Co., Contrs., Springfield, Mass.

W. Va., St. Albans.—N. S. Flourney; $15,000 residence; 2 stories and basement; 31x53 ft.; shingle tile roof; wood floors; H. Rus Warne, Archt., Masonic Temple, Charleston, W. Va.; J. E. Johnson, Contr., St. Albans.

Government and State.

Tenn., Memphis — Sub-Postoffice. — W. I. Moody; $10,000 building; 1 story; brick veneer; C. B. Lyon, Contr.

Hospitals, Sanitariums, Etc.

Ala., Montgomery.—Memorial Hospital; $123,000 building; main front 112 ft. with "T" 60x44 ft.; brick; stone trim; tar and gravel roof on tile and concrete; tile and reinforced concrete floors; material ordered except maple flooring; Frank Lockwood, Archt. Address Thos. Purvis, Contr. (Lately noted.)

Md., Baltimore.—South Baltimore General Hospital, John T. E. Nesbitt, Supt., Light St. near West; remodel buildings for nurses' home; Herbert G. Jory, Archt., Continental Bldg.; George Pierson, Contr., 1000 Olive St.

Va., Victoria.—Dr. E. L. Kendig and F. A. Skillman, Victoria, and Dr. W. D. Kendig and S. J. Castle, Kenbridge, Va.; hospital; 60x70 ft.; 2 stories and basement; brick and cement; composition shingle roof; rift pine and tile floors; hot-water heat; electric lighting, probably by storage battery; elevator, 4x7 ft.; Sam Castle, Contr., Kenbridge. (Previously noted.)

Hotels.

Mo., Kansas City—Joseph Waldner; 6-story and basement hotel; 60x150 ft.; 81 rooms; Harvey Stiver, Contr., Shukert Bldg.; S. B. Tarbet, Archt., Republic Bldg., Hedrick & Huff, Struct. Engrs., Interstate Bldg. (Lately noted.)

Tex., Jakehamon. — H. F. McFarland, Ranger, Tex.; $14,000 hotel; 40 rooms; J. D. Stanley, Contr., Ranger.

Tex., Ranger.—Gholson Interests; $250,000 hotel; 5 stories; Walsh & Burney, Contrs., San Antonio.

Tex., Weatherford.—Weatherford Hotel Co.; $100,000 hotel; 4 stories and basement; 97x54 ft.; fireproof; brick; 50 rooms; 42 with private bath; roof garden, 20x54 ft.; 2 elevators; David S. Castle, Archt., Abilene, Tex.; contract let. (Lately noted.)

Miscellaneous.

Ala., Birmingham — Bathhouse. — Joubert & Goslin Machinery & Foundry Co., Box 930; hollow tile and concrete bathhouse and locker-room; 60x80 ft.; C. M. Allen & Son, Contrs. (Lately noted.)

Fla., Tampa—Fair.—South Florida Fair & Gasparilla Carnival, W. G. Brorein, Prest., Peninsula Telephone Bldg.; 2 buildings; brick and stucco; composition roof; cement floors; $10,000; Jones & Oatley, Contr.; Bert Gagon, plumbing; Fort & Parslow, Archts., Curry Bldg. (Lately noted.)

Fla., West Palm Beach—Cafe.—W. C. Hubbard, Niagara Falls, N. Y.; remodel cafe, install front, dining-room, 125x25 ft.; enlarge kitchen, dressing-rooms, soda fountain; reinforced concrete and hollow tile; C. J. Tallman, Contr.

Ga., Columbus—Clubhouse.—Country Club; $25,000 building; basement for lockers, shower baths; brick and stucco; wood and tile floors; steam or hot-air heat; probably red tile roof; Jno. Martin, Jr., Archt., W. D. Burke, Contr. (Previously noted.)

Schools.

La., Alexandria.—St. Francis Xavier Academy; $30,000 building; 70x99 ft.; reinforced concrete and brick; Johns-Manville 4-ply roof; concrete floors covered with edge grain pine; 2-pipe steam-heating system, Ideal boiler; E. Leo Ball, Archt., Haas Bldg. Address Gehr Construction Co., Contr. (See Machinery Wanted — Contractors' Equipment.)

Miss., Leland.—Leland Consolidated School Dist.; 3-story brick and hollow tile building; composition roof; 16 rooms and auditorium; brick-veneer teachers' home; composition roof; furnace heat; Walker Bros., Fayetteville, Ala., Contrs. at $88,165; L. A. Peters, heating, $7100; Davis Plumbing Co., plumbing, $2950; J. L. Fatherree, wiring, $939; all Jackson, Miss.; Raymond B. Spencer, Archt., Goodwyn Institute Bldg., Memphis, Tenn. (Lately noted.)

Mo., Houstonia.—Board of Education, C. L. Parkhurst, Secy.; $15,000 high school; brick;

stone trim; composition roof; Percy Stemmons, Contr., Houstonia; J. H. Felt & Co., Archt., 800 Grand Ave., Temple Bldg., Kansas City. (Lately noted.)

Tex., Crisp.—Board of Trustees; $12,000 school; 50x72 ft.; concrete, brick and tile; tar and gravel roof; wood floors; individual heaters; electric wiring; C. H. Leinbach, Archt.; Galley-Goodwin Co., Contr., both Dallas. Address W. J. Galley, 1413 Haskell Ave., Dallas. (Lately noted.)

Tex., Houston. — School Board; $23,000 building; Tom Telligson, Contr. (Previously noted.)

Tex., Sherman.—School Board; negro high school to replace Fred Douglass school, and school in Second Ward; $90,800; Morgan & Young, Contrs.

W. Va., Pine Bluff.—Shinnston Dist. School Board, A. B. Morrison, ecy., Shinnston, W. Va.; $20,000 school; 60x80 ft.; 1 story and basement; brick; S. W. Ford, Archt., Clarksburg, W. Va.; Riley & Riley, Contrs., Charleston, W. Va. (Previously noted.)

Stores.

Ala., Mobile.—Frank A. Ortmann, 253 Davis Ave.; $17,800 store and poolroom; 75x70 ft.; brick; composition roof; cement floors; sidewalk, $300; C. L. Hutchisson, Archt., Bank of Mobile Bldg.; Hardin & Hancock, Contrs. (Lately noted.)

Mo., Kansas City.—Thos. O. Bright; store and office building; 3 stories and basement; 120x134 ft.; steel, brick and reinforced concrete; stone trim; composition roof; Pratt-Thompson Co., Contr., Republic Bldg.; F. H. Michaelis, Archt., Ridge Arcade. (Lately noted.)

Mo., Springfield.—Mrs. Madge Milligan, 2-story-and-basement business building; 78x117 ft.; Heckenlively & Mark, Archts., Landers Bldg.; M. E. Gilloz, Contr., Monnett, Mo. (Lately noted.)

S. C., Columbia. — Pacific Mills; $48,000 store and lodge building; 40x100 ft.; brick; also remodel Y. M. C. A.; $18,000; Kilham & Hopkins, Archts.; General Building Co., Contr., both Boston, Mass. (Lately noted.)

Tex., Ranger.—Palmer Bros.; $5500 store and $5000 garage; former 40x40 ft.; latter 40x100 ft.; McNelly Bros., Contrs.

Tex., San Antonio.—Staacke Bros.; $25,000 building; 100x130 ft.; hollow tile and concrete; Coleman & Jenkins, Contrs.; Phelps & Dewees, Archts. (Lately noted.)

Tex., San Antonio.—H. Harrington & Co.; $54,249; 3-story building; Coleman & Jenkins, Contrs.; Wright Bros., electrical work, $760.

Va., Portsmouth.—Thos. Reed; 2-story brick building in Port Norfolk; 86x38 ft.; tapestry brick and hollow tile; wood joist and floor construction; 5-ply Barrett specification roof; stone trim; city lights; $15,000 to $20,000; Chas. M. Major, Archt., 408 Crawford St.; R. V. Long, Contr., 635 South St. Address owner.

Theaters.

Mo., Kansas City.—N. J. Flynn; $100,000 theater; 2 stories and basement; 38x142 ft.; brick, stone and terra cotta; composition roof; Edelman-Fleming Construction Co., Contr., Railway Exchange Bldg.; E. P. Madorie, Archt., Republic Bldg.; H. A. Noble, Struct. Engr., Reliance Bldg. (Lately noted.)

Tenn., Knoxville.—Vine Realty Co.; $50,000 to $75,000 theater; 2 stories; pressed brick; seat 1000; first floor for billiard parlor and stand; J. H. Ryno, Archt.; J. M. Dunn & Sons, Contrs.

Warehouses.

Ga., Savannah.—W. R. Ozburn; $40,000 warehouse for Loose-Wiles Biscuit Co.; 1 story; 10,000 sq. ft.; brick; prepared roof, slate surfaced; maple floors; gas heat; electric lighting; asphalt sidewalks; R. L. Carson, Archt.; R. J. Whalley, Contr. (Loose-Wiles Biscuit Co. lated noted to erect building.

S. C., Spartanburg.—Spartanburg County Warehouse Co.; fireproof warehouse; assembly room to seat 500; steam heat; hot and cold water; Fiske-Carter Construction Co., Contr. (Lately noted.)

Tenn., Memphis.—Union Seed Fertilizer Co.; hull, seed and meal buildings in connection with plant. (See Bank and Office.)

Tex., Houston.—Texas Portland Cement Co.; $30,000 concrete silo warehouse on ship channel; McDonald Engineering Co., Contr., Chicago.

Va., Danville. — Merchants' Supply Co.; warehouse on Craighead St.; 47x127 ft.; also buildings for stable and garage; Wm. H. Deitrich & Son, Contrs.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Acids.—A. I. Bernstein, 1820 Second Ave., Birmingham, Ala.—Quotations on acids.

Ash and Chloride.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—30,000 lbs. soda ash, schedule 4710, delivery White Plains, Md.; 2000 lbs. carbon chloride, schedule 4703.

Awnings.—Wm. Hoyt, Estherwood, La.—Prices on awnings for bungalows.

Baking Ovens (Enamel). — See Foundry Equipment.

Bank Fixtures.—Geo. Hafer, Hebron, Ky.—Prices on bank fixtures, vault, safe, etc.

Barrel Machinery and Materials.—Queen Anne Packing Co., Easton, Md.—Data and prices on barrel machinery; staves; hooks; heads.

Belting. — Wm. O. Hudson, Prest. Port Commrs., 200 New Orleans Court Bldg., New Orleans.—Bids until Oct. 22; large quantity conveyor belting for coal-handling plant.

Bench Tools.—See Foundry Equipment.

Boiler.—J. S. Downard, Engr., Sulphur, Okla.—Several hundred horse-power boiler; superheaters.

Boiler.—Richey Construction Co., Clyde F. Burns, Mgr., New Port Richey, Fla.—60 H. P. boiler.

Boiler.—J. A. Crabtree, Bryson City, N. C. 25 H. P. boiler. (See Sawmill.)

Boiler.—Geo. F. Weston, Chandler, N. C.—25 H. P. boiler; wood burning for low-pressure steam heating; horizontal semi-portable type.

Boilers.—See Engines, etc.

Boilers.—City Register's Office, Board of Awards, Baltimore, Md.—Bids until Oct. 27; install boilers on iceboat Annapolis; B. P. Harrison, Harbor Engr.

Boring and Turning Mill.—Davis Foundry & Machine Works, Rome, Ga.—Second-hand 10x12 or 8x12-ft. boring and turning mill.

Bottling Machine.—Crystal Water Co., Geo. R. Kline, Prest., 312 1st St., Miami, Fla.—Bottle-washing and filling machine.

Brick Machinery.—J. P. Kramer, Archt., Elizabeth City, N. C.—Data and prices on brick machinery.

Bridge Construction. — Commrs. Osceola and Little River Road Improvement Dist. No. 1, Osceola, Ark. — Bids for 12 steel bridges; six 40, four 65, one 75 and one 200-ft. spans; Pride & Fairley, Engrs., Osceola, Ark.

Bridge Construction. — Wise County Supervisors, Wise, Va.—Bids until Nov. 11; 7 steel bridges; R. H. Bruce, County Engr., Norton, Va.

Bridge Construction.—State Roads Commission., 601 Garrett Bldg., Baltimore, Md.—Bids until Nov. 5 275 ft. concrete bridge over Pocomoke River, 24-ft. roadway; Somerset and Worcester counties, Contract S-11; superstructure of a lift bascule span, double leaf over Pocomoke River, clear span between fenders 65 ft., roadway 24 ft.; plans, etc., on file.

Bridge Construction. — Tennessee State Highway Comsn., W. P. Moore, Ch. Engr., 227 7th Ave., Memphis, Tenn.—Bids until Nov. 7; 10 concrete bridges over 20-ft. clear span, 300 drainage structures; 50 mi. Memphis to Bristol Highway, Federal-aid Project No. 14.

Bridge Construction.—State of Oklahoma, M. L. Cunningham, State Engr., Oklahoma City, Okla.—Bids until Nov. 10; bridge across South Canadian River, 780 ft.; 4 steel spans; $150,000; plans, etc., with Highway Dept., Oklahoma City.

Builders' Supplies. — Builders Supply & Equipment Corp., Danville, Va.—Agencies in Virginia, North and South Carolina.

Calendars.—W. J. Sullivan & Co., Lafayette, Tenn.—Correspondence with mfrs. advertising calendars and pictures.

Canners.—Springs Distributing Co., Heath Springs, S. C.—Correspondence with canners.

Cars. — Wm. B. Grimshaw Co., Drexel Bldg., Philadelphia, Pa.—25 Western 4-yd. 2-way 36-in.gauge diamond frame dump cars.

Cars (Mine). — Audley-Hart-Stow, P. O. Drawer 1477, Charleston, W. Va.—Names and addresses West Virginia, Ohio and Kentucky mfrs. mine cars.

Cement Block Machinery.—C. W. Peters, Gadsden, Ala.—Cement block machinery.

Cheese Makers.—Springs Distributing Co., Heath Springs, S. C.—Correspondence with cheese makers.

Car. — Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand well car.

Condensers.—Emile Miers & Co., Kaplan, La.—Condensers for ice plant.

Contractors' Machinery.—R. A. Smith Co., Monroe, La.—Contractors' machinery.

Contractors' Equipment. — Gehr Construction Co., Alexandria, La.—Prices on contractors' equipment and machinery.

Concrete Moulds.—George McCullough, 1511 E. 5th Ave., Knoxville, Tenn. — Concrete moulds for jardiniere and stands.

Conveyor System.—Realty & Finance Corp. of Virginia, W. H. Dorin, Richmond, Va.—Conveyor system for ground marl from plant to river to load into barges; 2 mi.

Cork (Insulating). — Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—Insulating cork for cold-storage house and tank.

Corn Crib.—Thos. M. O'Connor, 928 Telfair St., Augusta, Ga.—Ratproof corn crib, corrugated iron with cement base.

Cranes (Locomotive).—See Engines, etc.

Crane.—Saml. T. Williams, 223 N. Calvert St., Baltimore, Md.—Locomotive crane.

Crushers.—J. S. Downard, Engr., Sulphur, Okla.—Large jaw crusher; large gyratory

crusher; No. 8 crusher; another smaller; No. 5 crusher; another larger; tube mills; fine grinders.

Crushing Plant.—Jas. S. Downard, Asphalt Engr., Box 734, Sulphur, Okla.—Gyratory crushers; jaw crushers; tube mills; boilers; engines; oil engines; super-heaters; asphalt and roofing machines; lubricating plant; steel tanks; etc.

Cotton Rope Machinery.—Alexander Pankey, Lauderdale, Miss.—Data and prices on cotton rope machinery.

Derrick. — Columbia Granite & Dredging Co., 3036 K St. N. W., Washington, D. C.—Derrick, stiffleg, for safe load 6 tons; boom not less than 55 ft. with bull wheel.

Ditch.—Chester and McNairy County Commissioners, Sweerlips Creek Drainage Dist. No. 8, Henderson, Tenn., U. N. Bullman, Secy-Treas., R. F. D. No. 2, Finger, Tenn.—Bids until Oct. 27; remove 68,255 cu. yds. dirt, clear 60-ft. right-way; ditch section 1 and 2; 2400 yds.; 49.5 acres right-way.

Ditches. — Craighead County Commrs., Drainage Dist. No. 18, Monette, Ark.—Bids until Oct. 24; 36 mi. open ditches; 777,000 cu. yds.; Pride & Fairley, Engrs., Osceola, Ark.

Drill.—High Point Machine Works, High Point, N. C.—Second-hand radial drill, 36 to 42 in.

Drykilns.—Sweet Potato Drykiln Co., Edmond Wile & Bro., Mgrs., Rayne, La.—Drykiln; plans and building material for drykilns.

Dust-collecting System.—Geo. E. Nissen & Co., Winston-Salem, N. C.—Dust-collecting system.

Edger.—West Alabama Lumber Co., J. C. Milner, Prest., Sulligent, Ala.—Small edger.

Electrical Equipment.—R. A. Smith Co., Monroe, La.—Electrical equipment.

Electrical Equipment.—J. P. Henican, V.-P. Board of Administrators, Charity Hospital, New Orleans.—Bids until Nov. 10; electrical wiring for buildings; Diesel engines; D. C. generators; steam engines; D. C. generators; switchboards and underground cables; underground ducts and manholes; D. C. X-ray apparatus; second-hand A. C. apparatus; A. Wyndham Lewin, Consit. Engr., 804 Union St.

Electrical Machinery.—Carter Corp., Crozet, Va.—Prices on standard make second-hand motor, 20 K. W., A. C., 110-volt, 3-phase, 60-cycle, or 220-volt; transformer, second-hand, 2300-volt to 110 or 220-volt, to correspond with voltage of motor.

Electric-light System.—D. Marshal, Fenton, La. — Electric-light system for residences.

Electric-light Plant.—L. L. Wagner, Lafayette, La.—Electric-light plant for dwelling and barn.

Elevator.—Wm. Hoyt, Estherwood, La.—Prices on house elevator.

Engines.—See Electrical Equipment.

Engine.—J. R. Fairey, Fort Motte, S. C.—Oil engine.

Engine.—Saml. T. Williams, 223 N. Calvert St., Baltimore, Md.—75 to 100 H. P. steam engine, medium or slow-speed type, Corliss or similar type preferred.

Engines, etc.—Mississippi River Comsn., Custom-house, Memphis, Tenn.—Bids until Nov. 1; hoisting engines, boilers and locomotive cranes.

Engine.—J. A. Crabtree, Bryson City, N. C.—20 H. P. engine. (See Sawmill.)

Engines (Gas).—See Lathe, etc.

Engine.—Emile Miers & Co., Kaplan, La.—Ice plant engine.

Excavator.—H. A. Paine, Houston, Tex.—Dragline excavator with 1 to 1½-yd. bucket; new or second-hand.

Farm Implements.—J. A. T. Hoyt, Easterwood, La.—Farm tractors, 3 bottom plow, pulverizer.

Flooring.—R. J. Whaley, 221 W. 38th St., Savannah, Ga.—12,000 to 15,000 ft. ⅞x3¼ hardwood flooring; oak, maple or beech No. 1; for warehouse.

Foundry Equipment. — Limacon Pump & Motor Co., Arthur L. Ayers, Mgr., 207 Gaston Bldg., Dallas, Tex.—Horizontal boring mills, machine shop equipment, enamel baking ovens, punch presses, circular shears, tool-making machinery, bench tools, etc.

Fruit Growers.—Springs Distributing Co., Heath Springs, S. C.—Correspondence with fruit growers.

Fuel Oil.—Realty & Finance Corp. of Virginia, W. H. Dorin, Richmond, Va.—Data and prices on fuel oil.

Furniture (Garden).—George McCullough, 1511 E. 5th Ave., Knoxville, Tenn.—Garden furniture.

Gears and Pinions.—See Machine Tools.

Generator Set. — Buehner Lumber Co., Portland, O.—750 to 1250 K. W. A. C. generator set; 60-cycle, 3-phase, 2300 or 440-volt; prefer condensing generator set with switchboard; second-hand; good condition.

Gins (Cotton).—J. R. Fairey, Fort Motte, S. C.—Two or three 70-saw hulling gins, complete with oil engine.

Glass Bottles.—S. R. Gillock, 324 46th St., Newport News, Va.—Wide mouth 20-ounce pickle bottles.

Grading.—R. G. Hill & Co., Contrs., Earle, Ark.—Grading work for steam shovel and teams.

Grinders.—See Pulverizers.

Hair and Bristles.—Max Wagner, Guffey, Tex.—Assorted washed hair and bristles.

Heater.—Saml. T. Williams, 223 N. Calvert St., Baltimore, Md.—Feed-water heater, 300 H. P., with feed pump.

Heaters (Boiler).—See Boiler.

Heating Plant.—Wm. Hoyt, Estherwood, La.—Prices on steam-heating plant for bungalow.

Hoister.—Saml. T. Williams, 223 N. Calvert St., Baltimore, Md. — Motor-driven single-drum hoister, suitable for tub rig hoist, 50 H. P. motor, A. C., 220 volts, 3-phase, 25-cycle; drum 30 in. diam., 24 in. long, with or without motor.

Hose.—I. M. Cashell, City Mgr., Goldsboro, N. C.—Bids until Nov. 3; 1200 ft. fire hose, 2½-in. cotton covered, rubber lined.

Lath Mill.—James B. Porter, 225 Plume St., Norfolk, Va.—Wood frame lath mill with bolter combined, complete with saws.

Ice Machinery.—Mansfield Gin Co., J. F. McFarland, Secy.-Treas., Mansfield, La.—Ice machinery.

Irrigation Plant.—J. Jinking, Basile, La.—Rice irrigation plant.

Irrigation Plant.—C. P. Guidry, Riverside, La.—Rice irrigation plant.

Lathe, etc.—H. Fleshman, Bunkie, La.—Machine shop turning lathe and gas engine.

Lathe.—Union Foundry Co., Anniston, Ala. 20-in. screw-cutting engine lathe, 12-ft. bed.

Laundry Machinery, etc.—Panama Canal, A. L. Flint, Gen. Purchasing Officer, Washington, D. C.—Bids until Nov. 4; laundry machinery; stay-bolt iron; slitting and cutting shear machine; wooden and metal office furniture; chalk line; leather belting; boiler lagging; packing; hose; rubber boots; window glass; floor and paint brushes; supply and waste fixtures; railway bunting; canvas; cheesecloth; oilcloth; calcium carbide; soap; writing fluid; emery cloth; sandpaper; asbestos paper; pad board; bond paper and untreated cypress switch ties. Blank forms and information (Circular 1310) on application to offices of: Panama Canal; Asst. Purchasing Agents at 24 State St., New York; 606 Common St., New Orleans; Fort Mason, Iowa; San Francisco; U. S. Engr. offices throughout country.

Loading Machinery. — R. N. McEachren, Douglas, Ga. — Power unloader to use on drop bottom cars for crushed stone.

Locomotives. — Wm. B. Grimshaw Co., Drexel Bldg., Philadelphia, Pa.—Two 6x10-in. or 7x12-in. four-driver saddle-tank 24-in.-gauge locomotives; two 10x16-in. Porter or Vulcan, 36-in. gauge.

Lumber Dollies.—Machinery Exchange Co., Bienville and David Sts., New Orleans.—Lumber dollies, any type wheel.

Machine Shop Equipment.—See Foundry Equipment.

Machine Tools, etc.—Guyan Machine Shops, Logan, W. Va.—140 steel plates, ¼x12x21 or ¼x10x21 in.; angles, 4x3x½ and 2½x2x¼ or 2½x2½x¼ in.; gears and pinions, 5 or 4-in. face, ratio about 6 to 1; bolt machine, ½ to 1½ in. or larger; index centers, for milling machine; lathe, for turning locomotive tires up to 36-in. diam.; cold-rolled shafting or round steel up to 6-in. diam.

Marble and Stone.—Louisville Mausoleum & Crematory Co., S. H. Bow, Mgr., 403 Crutcher and Starks Bldg., Louisville, Ky.—Stone and marble for $150,000 mausoleum and crematory.

Manufactured Products. — Springs Distributing Co., Heath Springs, S. C.—Data and prices on manufactured products.

Memorial Windows. — Mann & Gatling, Scimitar Bldg., Memphis, Tenn.—Information on memorial windows for church at Forrest City, Ark.

Metal Forms.—J. A. Crocker & Son, Orlinda, Tenn. — Metal forms for monument work, using concrete, moulding and lettering in operation.

Motor.—Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—Motor and deep-well pump for 80-gal. water per minute.

Motor.—B. W. Middlesbrooks Co., Barnesville, Ga.—50 H. P. A. C. motor, 2200 volts.

Motor Generator.—Room 704, 35 W. 39th St., New York.—Synchronous motor generator set; 100 to 150 K. W., 250 to 275 volts, D. C., 440 volts, 3 phase, 60 cycle, A. C.

Motor.—Lancaster Ice & Fuel Co., Lancaster, S. C.—40 H. P. motor, 3-phase, 60-cycle, 2300 volts, speed about 900 R. P. M.; second hand, good condition.

Oil (Corn).—A. I. Bernstein, 1820 Second Ave., Birmingham, Ala.—Quotations on corn oil.

Oil Refinery.—Jas. S. Downard, Asphalt Engr., Box 734, Sulphur, Okla.—Gyratory crushers; jaw crushers; tube mills; boilers; engines; oil engines; super-heaters; asphalt and roofing machines; lubricating plant; steel tanks; etc.

Paint (White). — Lighthouse Inspector's Office, Third Dist., Tompkinsville, N. Y.—4000 gals. white paint; bids until Oct. 30; proposals 6542.

Paving. — Town of Vinton, La., B. J. Blanchard, Mayor.—Cement sidewalks and curbing; bids opened Oct. 21; plans, etc., with F. Shutts & Sons, Engrs., Lake Charles, La.

Paving. — City, R. F. Beasley, Recorder, Avis, W. Va.—Bids for 6-ft. wide concrete sidewalks; bids opened Oct. 20.

Paving.—City of Longview, Tex., G. A. Bodenheim, Mayor.—Bids for 22,000 sq. yds.

pavement; 12,700 lin. ft. concrete curbing; bids opened Oct. 22; plans, etc., with H. C. Bennett, City Secy.; H. N. Roberts, Engr.

Paving.—City of Sherman, Tex., O. J. S. Ellingson, City Manager. — Bids for 73,466.4 sq. ft. sidewalk; bids opened Oct. 20; plans, etc., with City Engr.

Paving.—City of Selma, Ala.—Bids until Oct. 27; concrete sidewalks on Broad St.; plans, etc., with W. O. Crisman, City Engr.

Paving.—City of Jefferson City, Mo.—Bids until Nov. 3; grade and macadamize with asphalt binder Clark Ave.; plans, etc., with City Clerk, and Linn F. Brown, City Engr.

Paving.—City of Spartanburg, S. C., J. F. Floyd, Mayor.—Bids until Nov. 3; paving; bituminous and brick pavements; plans, etc., with Harwood Beebe, Engr.

Paving.—City of Columbia, S. C.—3000 sq. yds. concrete sidewalk paving; 4000 lin. ft. concrete curb; 1500 lin. ft. storm drain pipes; bids opened Oct. 23; plans, etc., with J. Keith Legare, City Engr.

Paving. — Commrs. Street Improvement Dist. No. 265, Thomas M. Cory, Secy., Little Rock, Ark.—Bids until Oct. 27; drain, curb and pave 7 blocks streets with bituminous concrete or asphaltic concrete; 6378 sq. yds. pavement; plans, etc., with Ford & MacCrea, Engrs., 326 Gazette Bldg.

Paving.—City of Decatur, Ala., James A. Nelson, Mayor.—Asphalt, asphaltic concrete or bitulithic pavement and cement gutters; bids opened Oct. 23; plans, etc., with City Engr.

Pipe.—S. Bender Iron & Supply Co., 1132 Marshall St., Shreveport, La.—Pipe; all sizes; for oil country; prefer drill and line pipe; new or second-hand.

Pipe Organ. — Mann & Gatling, Scimitar Bldg., Memphis, Tenn.—Information on pipe organ for church at Forrest City, Ark.

Piping.—J. S. Downard, Engr., Sulphur, Okla.—Piping.

Planer (Metal).—Long Bell Co., Quitman, Miss.—Planer, about 30x30 in. by 8 or 10 ft., belt driven; prefer Niles-Bement-Pond machine; specifications and price.

Plaster Board.—E. T. Clarke, Beaufort, S. C.—To correspond with manufacturers plaster board.

Presses (Punch). — See Foundry Equipment.

Pulverizer.—Wm. B. Grimshaw Co., Drexel Bldg., Philadelphia, Pa.—Hammer mill to pulverize 15 to 25 tons limestone per hour to 6-in. mesh and under.

Pulverizers.—J. S. Downard, Engr., Sulphur, Okla. — Tube mills; fine grinders; piping.

Pump.—Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—Deep-well pump and motor for 80-gal. water per minute.

Pumps. — Visible Measure Gasoline Dispenser Co., 716 W. Breckenridge St., Louisville, Ky.—Large quantity pumps (similar to rotary) for gasoline dispenser; also to contract for mfre. piston type (principle of 2-cylinder automobile engine) small pump for gasoline.

Pumping Plant.—E. Hanks, Rice, La.—12-in. pump and power plant, 15-ft. lift.

Puzzle Cards.—R. N. Mehra & Co., Dinapore, Cantt, India. — Correspondence with puzzle cards printers for advertising.

Rails, etc.—Hackley Morrison Co., Richmond, Va.—160 tons 35-lb. relay rails with splices and bolts; delivery Eastern Virginia.

Rails, etc.—Oneida & Western R. R. Co., Oneida, Tenn.—12 mi. 40-lb. relaying rails, angle bars, spikes.

Rail, etc. — Central Timber Sawmill Co., Bennettsville, S. C.—3 mi. 45-lb. relaying rails and angle bars.

Ranges and Heaters.—H. O. Shaw, Box 574, Miami, Fla.—Prices on electric ranges and heaters.

Rice Separator. — F. Fontenot, Riceville, La.—Rough rice separator machine.

Refrigerating Plant. — Treasury Dept., Supervising Archt's. Office, Washington, D. C. Bids until Nov. 10; refrigerating plant for U. S. Marine Hospital, San Francisco; plans from Supervising Supt. of Construction, Room 403 Postoffice, San Francisco.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore.—Bids until Oct. 28; 2 mi. State highway from State road near Faulkner toward Allen Fresh; gravel; Charles County, Contract CH-16, Federal-aid Project No. 31; plans, etc., on file.

Road Construction. — Greenwood County Highway Comsn., E. I. Davis, Secy., Greenwood, S. C.—Bids until Oct. 28; 11.1 mi. Callison road from Dixie Highway to McCormick County line; 42,500 cu. yds. topsoil; plans, etc., with B. R. Cowherd, Jr., County Engr.

Road Construction. — Commrs. County Highway Improvements District, Craighead, Green and Poinsett counties, Jonesboro, Ark. Bids until Oct. 24; 84 mi. asphaltic concrete on cement concrete base, or asphaltic macadam on gravel base or clay-gravel.

Road Construction.—New Madrid County Commrs., New Madrid, Mo.—Bids until Oct. 27; grade, ditch, rock surface, etc., 7.95 mi. Morehouse-Libourn road; 14.28 mi. Libourn-Parma road; plans, etc., with County Clerk.

Road Construction.—Kendall County, J. A. Phillips, Judge, Boerne, Tex. — Bids until Nov. 10; retop with gravel, surface treatment, 5¾ mi. State Highway No. 19; width 16 ft.; plans, etc., on file at Boerne and with State Highway Dept., Austin, Tex.

Road Construction. — Hampton County Commrs., Hampton, S. C.—Bids until Oct. 29; 15.62 mi. sand-clay road and several bridges; 37,339 cu. yds. sand-clay surfacing; plans, etc., on file at Hampton and with F. H. Murray, Acting State Highway Engr., Columbia, S. C.

Road Construction.—Tennessee State Highway Dept., W. P. Moore, Ch. Engr., Nashville, Tenn.—Bids until Nov. 7; 50 mi. State Highway No. 1 in Grainger, Hawkins and Sullivan counties; 458,245 sq. yds. waterbound macadam, 15,653 sq. yds. bituminous macadam; plans, etc., on file.

Road Construction.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans.—Bids for 11.3 mi. Melville-Palmetto Highway, gravel, St. Landry Parish; bids opened Oct. 20. Duncan Buie, State Highway Engr.

Road Construction.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans.—Bids until Oct. 27; 19.43 mi. Pelican Highway, Jefferson Davis Parish; Duncan Buie, State Highway Engr.

Road Construction.—State Highway Dept., Nashville, Tenn.—Bids until Nov. 10; 16.35 mi. State Highway No. 12 between Memphis and Millington; cement-concrete pavement, rock asphalt or bituminous macadam with seal coat rock asphalt; plans, etc., on file; W. P. Moore, Ch. Engr.

Road Construction.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans.—Bids until Oct. 27; 22.73 mi. Pearl River Highway, Washington Parish, gravel; 11.97 mi. Mississippi State Line Highway, gravel; Duncan Buie, State Highway Engr.

Road Construction.—Highway Dept., Board State Engrs., Room 736 Maison Blanche Annex, New Orleans.—Bids until Oct. 27; 17.37 mi. Lake Providence-Arkansas Highway, East Carroll Parish, gravel; 17.89 mi. Lake Providence-Tallulah Highway, East Carroll Parish, gravel; Duncan Buie, State Highway Engr.

Road Machinery.—Acme Road Machinery Co., Frankfort, N. Y.—20-ton or more 2 or 3 motor electric crane; koor or cage control for A. C.; speed, 32 ft; lift, 27 ft.; new or second-hand.

Roofing.—J. A. T. Hoyt, Easterwood, La.—Asbestos roofing.

Roofing.—Wm. Hoyt, Estherwood, La.—Prices on asbestos shingles.

Roofing.—Dawson Variety Works, Dawson, Ga.—150 squares 2½-in. corrugated galvanized roofing, 28 and 29-gauge; prices delivered at Dawson clear of all charges.

Roofing.—Perkins & Edwards, Greenville, S. C.—Names and addresses of manufacturers of 1, 2 and 3-ply rubber roofing and rosin building paper for storm sheeting.

Saw. — James B. Porter, 225 Plume St., Norfolk, Va.—Second-hand 52 or 54-in. chisel bit circular saw.

Sawmill.—Cumberland Valley Lumber Co., Cincinnati, Ohio.—Small portable band sawmill; particulars and price.

Sawmill.—J. A. Crabtree, Bryson City, N. C.—Second-hand sawmill, 25 H. P. boiler, 20 H. P. engine; good condition.

Sawmill.—Atlantic Supply Co., 421 Water St., Norfolk, Va.—No. 2 or No. 3 Lane sawmill; second-hand.

Seating.—Mann & Gatling, Scimitar Bldg., Memphis, Tenn.—Information on pews, etc., for church at Forrest City, Ark.

Scales, etc.—Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—Scales, etc., for icehouse.

Shelving. — Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—55 shelving sections, schedule 4757.

Shovels (Steam).—Wm. B. Grimshaw Co., Drexel Bldg., Philadelphia, Pa. — 2½-yd. steam shovel, Marion model 60 or 61; Marion model 30 or 31 on traction wheels; Marion model 28 on traction wheels.

Shovels. — R. L. Southern, Morristown, Tenn.—To lease Keystone shovel for 30,000 cu. yds. street excavation; advise location and time shipment.

Springs. — James M. Gaar, Box 609, St. Petersburg, Fla. — Names and addresses mfrs. automobile springs.

Sprinkler System.—Geo. E. Nissen & Co., Winston-Salem, N. C.—Sprinkler system.

Sprinkler System.—Treasury Dept., Supervising Arçht's. Office, Washington, D. C—Bids until Nov. 4; automatic sprinkler system in building at 412 to 416 14th St. N. W.

Steel.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C. — 150 sheets steel, schedule 4705.

Steel Plates.—See Machine Tools.

Stone.—See Marble and Stone.

Sugar Cane Mill.—Richey Construction Co., New Port Richey, Fla.—Cane-grinding mills and syrup pans.

Surveyor's Compass. — J. C. Dietz, Pace, Miss.—Surveyor's compass for farm use.

Tanks.—Triangle Co., E. T. Paxton, Treas., 502 Interurban Bldg., Dallas, Tex.—Gasoline and oil storage tanks.

Tanks.—J. S. Downard, Engr., Sulphur, Okla.—Tanks.

Tank.—Crystal Spring Water Co., George R. Kline, Prest., 312 1st St., Miami, Fla.—800-gal. glass or enamel-lined storage tank.

Tool-making Machinery. — See Foundry Equipment.

Tractors.—J. Jinking, Basile, La.—Farm tractors.

Tractors.—Theodore Dreyfus, Plaquemine, La.—Tractors.

Transformers.—Engineers' Office, Procurement Branch, Equipment Section, Troop Div., Washington, D. C.—Two 2 K. V. A. 60-cycle single-phase manhole type transformers; 4 K. W. single-phase control panel with spools; bids until Oct. 21.

Trucks. — Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—One or two 2-ton trucks.

Ventilator Shield.—E. T. Roux & Sons, Plant City, Fla.—Windshield or protector for office ventilation.

Vault, etc.—See Bank Fixtures.

Wagons. — Mt. Gallant Dairy Farm, 111 Main St., Rock Hill, S. C.—4 or 6 ice wagons; horse drawn.

Water-works.—City of Ada, Okla., W. B. Jones, Clerk.—Bids until Oct. 21; two 750-gal. per minute turbine pumps, 100 H. P. motors; two 1250-gal. per minute Underwriter turbine fire pumps, 200 H. P. motors; 3-panel switchboard complete with wiring, recording Venturi water meter, piping, valves, fittings; 10-in. automatic hydraulic valve; plans, etc., from Johnson & Benham, Engrs., Firestone Bldg., Kansas City, Mo.

Water-works.—L. Wagner, Lafayette, La. Water plant for dwelling and barn.

Wharf.—City of Pascagoula, Miss., F. H. Lewis, Mayor. — Bids; construct 1000-ft. wharf; lay 3000 ft. rails; W. H. Wallis, Engr.

Wire Products Manufacturers.—George A. Burgess, care Federal Underwriters, Suite 506 Woodward Bldg., Washington, D. C.—To correspond with manufacturers small wire articles or novelties relative to having garter manufactured.

Railroad Construction

Railways.

Tex., Stephenville.—Stephenville-Desdemona Oil Railway Co., capital $250,000, is incorporated to build narrow gauge line 22 mi. long, to be completed by January, office at Stephenville; Incorporators: F. H. Chandler, Charles Neblett and W. H. Hyde.

Tex., Temple.—G. W. Glass is Prest., George Houghton, V.-P.; T. A. Cheeves, Treas., and S. D. Hanna, Supt. and Ch. Engr. of a proposed electric railway from Temple to Marlin, Tex., 35 mi. via Bellfalls, Durango and Falls of the Brazos River. Includes river bridge 700 ft. long, besides two others of 200 ft. each and three of 50 ft. each, and a steel trestle 2000 ft. long.

Va., Richmond.—Spotsylvania R. R. Co. of Richmond, capital stock $1000 to $25,000, chartered to build a line in Spotsylvania County, 3 mi. Incptrs.: C. B. Lathrop, Prest.; J. D. Patton, Jr., Secy.; Joseph B. Baker, Edward McAuley, Clarence Stutz, E. I. Dunkum, M. Davis and Lewis Durham, all of Richmond.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Sale of Machine Tools and Equipment.

An important sale of machine tools and equipment by order of the United States Ordnance Department will take place November 5, 6 and 7 at the plant of the Eddystone Rifle Co., Eddystone, Pa., according to a detailed announcement elsewhere in these pages. In addition to machine tools and equipment of the rifle company, the sale will also include similar articles from the Fox Gun Co. and the Bethlehem Loading Co., making a total of about 900 lots of equipment and 900 lots of machine tools. Samuel T. Freeman & Co., 1519-1521 Chestnut St., Philadelphia, are the auctioneers, who will send catalogues on request.

Huge Rock-Crushing Machines.

Bulletin 145 of the Allis-Chalmers Manufacturing Co., Milwaukee, Wis., bears on the cover page a fine illustration of the 60x84-inch Fairmount type crusher, the magnitude of which is displayed by the picture of a man comfortably seated between the spokes of the large cog wheel of the machine. This huge device is for crushing massive limestone, dolomite, phosphate rock and magnesite. Smaller sizes are made for other kinds of work and all the crushers are illustrated in the publication. Their features include preliminary fracture of big rocks, secondary reduction by direct nipping and crushing, forcible mechanical discharge, which is useful when sticky material is handled, and selective action by crushing small pieces first and larger ones afterwards. A list of users of these crushers is included.

Fireproof Desks, Etc.

"A Business Man's Personal Equipment" is the name of a folder issued by the General Fireproofing Co., Youngstown, O., and it relates to the GF Allsteel Desk made of special quality cold-rolled steel sheets, electrically welded, which, it is stated, make a unit of enduring strength. Drawers work freely under all conditions. The top is covered with heavy linoleum bound with a solid bronze strip. Drawer pulls and footcaps are also of solid bronze. Handsome illustrations display the desks of this type and other fireproof office equipment as they actually appear.

Motor Trucks in Trying Work.

Service of the White trucks in the publishing and allied industries is described and pictured in a new booklet issued by the White Company, manufacturers of motor cars and trucks, Cleveland, O. It tells of how leading publishers and others in related lines of business cut their delivery costs and improved their service so that prompt arrivals were guaranteed and complaints eliminated, also about how trucks of this make have run 100,000 miles and more giving efficient, satisfactory service. Testimonials from users are appended to the numerous illustrations.

To Make Electric Motors.

The Zobell Electric Motor Corporation of Garwood, N. J., recently incorporated with $250,000 capitalization, proposes to make both A. C. and D. C. motors, beginning with sizes ranging from 1 to 7½ horse-power. It is intended to make a very high-grade motor with many new refinements. For instance, on the first line of motors, the design of which is now complete, the shafts may be removed without disturbing either the core or the commutator, and the commutator may likewise be removed without disturbing the shaft or core, which method, it is remarked, so far as the maker knows, has never been used on small motors. All refinements used now on large motors are to be adapted to these small machines. A line of standard commercial motors is being brought out, but at present the company is principally devoting itself to building motors designed especially for machines on which they are to be employed. The equipment is designed to produce from 200 to 300 motors monthly. Fred G. Bell is president; A. T. Zoebisch, treasurer, and F. E. B. Bucker, secretary.

Now With Lakewood Engineering Co.

Capt. P. H. Brigham, 130th Engineers, U. S. A., who recently returned from France, is now out of the army and with the paving department of the Lakewood Engineering Co. of Cleveland, O., as field engineer for New York, New Jersey and the New England States. Before entering military service in May, 1917, he was with the New York State Highway Department at Binghamton, N. Y.

To Manufacture Pumping Systems.

In order that he may give his entire time to the manufacture of the Wills pumping system at Memphis, Tenn., Wirt J. Wills has resigned as general superintendent of the Memphis Artesian Water Department, which position he has held for more than thirteen years.

Moved Into Larger Factory.

The Steubing Truck Co., 141 4th St. East, Cincinnati, O., on account of increased production and steady demand for the Steubing lift trucks, has sought larger quarters and moved its factory from Winton Place, a suburb of Cincinnati, to the new plant at 312, 314 and 316 E. Court St. This building is seven stories high and has approximately 50,000 sq. feet of floor space. Conditions are ideal in many respects for manufacturing, as the location is central, so that shipments can be readily made via all freight stations, affording customers prompt deliveries. There is fine light on all sides of the building, and while the work done is on separate floors, the new arrangement has resulted in increased efficiency, the gain in production having been 30 per cent in the last month, and it is expected to double the output in the next 60 days.

Tank Cars to Be Leased.

Several hundred tank cars were recently purchased from the United States Government by the Pittsburgh Machinery Co., Jones Bldg., Pittsburgh, Pa., which is agent of the Edward F. Terry Manufacturing Co.'s contractors' equipment. A leasing company is being organized to lease the cars.

Half a Century of Activity.

In November the Western Electric Co. will celebrate its fiftieth anniversary. This business was founded in the year 1869 when the firm of Gray & Barton was formed to manufacture telegraph instruments, bells and buzzers. From this small beginning the enterprise has developed into a company whose activities cover the world. The founders of the business were Enos M. Barton nd Elisha Gray. Mr. Barton being the first president. He was succeeded by H. B. Thayer and C. G. Du Bois, respectively. The old Kinzie-street plant in Chicago was occupied in 1871. The present large factory is at Hawthorne, Ill.

OBITUARY.

Walter W. Pharo.

Walter W. Pharo, one of the founders of the Belmont Iron Works, Philadelphia, and also its president and treasurer, died recently at Beach Haven, N. J. He was also president of the Tuckerton Railroad. He was 64 years of age and resided at Haverford, Pa. He leaves a wife and two daughters.

Trade Literature.

Zinc and Related Products.

"Pigments," "Rolled Zinc," "Chemicals," "Metals" and "Zinc Dust" are the names of five booklets issued by the New Jersey Zinc Co., 160 Front St., New York. They relate respectively to the zinc oxides, ochres, etc.; zinc strips and plates; sulphuric and muriatic acids, salt cake and zinc chloride; spelter, spiegeleisen and lead bullion, and the zinc dust, all made by this company.

By-Products of Coke and Gas Making.

A wealth of information about the coal by-products chemical industries is contained in "By-Product Coke and Gas Plants," a handsome book of nearly seventy pages, issued by the Koppers Company of Pittsburgh, designers and builders of by-product coke and gas oven plants, as well as plants for benzol recovery, motor fuel recovery, tar distilling and ammonia recovery. Among other things it says: "The recovery of the chemical base materials benzol, toluol, ammonia, cyanogen, naphthaline, tar and other valuable products of coal carbonization has had a rapid development during the last few years. In fact, America can produce today nearly all of the coal by-products chemicals and dyes that were imported entirely prior to 1915." Illustrative of the importance of conserving all of the things which may be obtained from soft coal is this sentence: "A well-known authority on fuels has said that to burn bituminous coal raw, without preliminary carbonization and recovery of by-products, ought to be and probably will be some day prohibited by law." Thus coke and gas would extensively take the place of coal for fuel, and it is noted that the use of coke for domestic and industrial heating has greatly extended in addition to its already wide use in metallurgical processes. The by-product coke oven is fully described in its several forms, as well as the other Koppers plants, numerous pictures of installations accompanying the reading matter. By-product recovery methods are narrated so that anyone may understand them. The book is beautifully made, with cover of blue lettered in gold.

Governors, Valve Chambers, Etc.

Pickering governors, automatic safety stops, valve chambers, stop valves, etc., are all described in detail and finely illustrated in Catalogue No. 20 of the Pickering Governor Co., Portland, Conn. Interchangeability of parts is a characteristic of these products, which are distributed in all countries, and the catalogue, in addition to price-lists, presents prices of parts of all products of the company. Customers will find the directions for ordering at the back of the book very convenient and time-saving.

Pipe-Making Process Described.

National Bulletin No. 7, issued by the National Tube Co., Pittsburgh, presents a complete article describing the manufacture and advantages of its welding-scale free pipe. It shows the process from the drawing of the skelp through a bell-shaped die that puts it in shape, and then through the welding furnace, the rolls, the transfer table, the scaling rolls, the cooling table and the washing and compressed-air processes, which remove the loose scale. Every step is interesting and instructive. The accompanying pictures are excellent. The company has been in existence for 50 years.

Electric Motors.

"The first successful single-phase motor was designed, patented and built by the Wagner Company," says the introductory sentence of Bulletin 118 of the Wagner Electric Manufacturing Co., St. Louis, the story continuing to state that this particular motor was sold in 1897 and was operated daily in a creamery for 13 years without repairs of any kind. Descriptions and pictures of the Wagner motors of today follow on several attractive pages.

Engineering, Construction, Management.

"Departmental Divisions" is a pocket-size folder issued by Day & Zimmerman, 611 Chestnut St., Philadelphia, whose business is engineering, management and construction. It bears on the outside a small map of the United States, having red dots to indicate the numerous points at which the firm has solved one or more problems. Management of public utilities, engineering for them or for industries, consulting engineering, and valuations and reports represent some of the activities of this establishment.

Standardized Structural Buildings.

Milliken Bros. Manufacturing Co., Inc., Woolworth Bldg., New York, has published a new catalogue (No. 10) descriptive of Milliken buildings. Structures of this type are built under the standardized truss unit system, designed by the company. It makes use of a small, interchangeable, standardized structural steel unit, and the buildings are all steel, permanent and fireproof; they are furnished complete with sash, doors, skylights and other parts, and are suitable for all classes of industrial and manufacturing structures, plantation buildings, warehouses, etc. The system makes possible low transportation and erection costs, allowing the choice of a thousand buildings, all constructed under the same unit type. The catalogue has large pages, profusely illustrated. Space is given to transmission towers, radio towers and special poles, as well as buildings. A companion book, known as Catalogue No. 11, is an erection handbook, being a complete guide to the construction of any of these buildings. Copies of these catalogues may be obtained free from the company.

Dust Collector—Rock Crushers.

Two bulletins have just been issued by the Allis-Chalmers Manufacturing Co., Milwaukee, Wis., one of them relating to the dust collector of this make and the other to modern rock-crushing plants. The first will be read with close attention by many manufacturers, especially by those whose establishments are occupied with grinding and handling fine, dusty materials, because the highest efficiency is impossible where men and machines have to work in a dusty atmosphere. The second is descriptive of the machinery and appliances which, in connection with the Allis-Chalmers-Gates rock and ore breakers, constitute the equipment of a rock-crushing plant. Both of these bulletins are admirably illustrated, and the pictures are accompanied by full information concerning the several productions.

Machinery and Supplies.

Somers, Fitler & Todd Co., 327 Water St., Pittsburgh, Pa., in a publication called "A Pictorial Visit to the House of Service," handsomely and attractively displays by means of a series of pictures the large stock of machinery and supplies maintained there for customers. The company began its successful career 30 years ago, and this handsome book is evidence of the enterprising spirit that has animated its life, besides indicating the causes of its large growth. Its work is that of distributing manufacturers' products to consumers, and the foreword observes that this line of business "is regarded by most manufacturers as part and parcel of their own selling and distributing forces." In addition to the pictures of various departments of the company is a full-page view of the city of Pittsburgh.

Electric Hoists.

The Victor R. Browning Company, Cleveland, O., has issued an eight-page bulletin about its new line of electric hoists for use in structural shops, automobile factories, foundries, machine shops, etc., where continuous rough usage is encountered. It is said that fouling of the cable is impossible, and there are also several other very desirable characteristics which make this type of hoist very timely to meet demands. The bulletin is illustrated and contains tables of dimensions, etc. The company also makes traveling cranes, mill-type motors, controllers, locomotive cranes, clam-shell buckets, steam shovels, gantry cranes, derricks, dredges, excavators and bucket trolleys.

Financial News

New Financial Corporations.

Ala., Mobile.—Union Savings Bank contemplates changing name to Union Commercial Bank. J. B. Dortch, Prest.; E. C. Meredith, Jr., Cash.

Ark., Bono.—People's Bank open for business; capital $16,000; surplus $1600; Geo. A. Lamb, Prest.; L. B. Golden, V.-P.; F. W. Davis, Cash.

Ark., Pine Bluff.—Southern Building & Loan Association applied for charter; capital $2,000,000; Will Nichol, Prest.; Pinchback Taylor, V.-P.; Charles A. Gordon, Secy.-Treas.

Ark., Pollard.—Bank of Pollard chartered; capital $10,000; J. B. Hillard, Prest.; J. B. Brakemore, Cash.

Ark., Texarkana.—State Saving & Trust Co. and the State National Bank have consolidated under name of State National Bank of Texarkana; capital $400,000, surplus $200,000; officers, directors and employes of both banks will be continued in the consolidated bank; E. A. Frost, Prest.

Fla., Palmetto.—Guarantee Investment Co. organizing. Roscoe E. Scott, Prest.; J. A. Howze, J. D. Howze.

Fla., Tampa.—Citizens' Bank & Trust Co. and American National Bank consolidated under name of Citizens' American Bank & Trust Co.; capital $1,000,000, surplus $300,000; L. A. Bize, Prest.; L. L. Buchanan, V.-P.

Ga., Cordele.—Cordele Bank & Trust Co., capital $100,000, applied for charter. Incptrs.: C. L. Harris, R. E. Hope, Dr. W. H. Dorris and others.

Ky., Hebron.—Hebron Deposit Bank incptd.; capital $20,000. Incptrs.: Wm. Goodridge, Sr., Burlington, Ky., R. No. 3; John Grant, Clint Riddell; Hubert Conner, J. C. Clore; soon as building is erected business will begin. (Lately noted.)

La., Lafayette.—Bank of Lafayette & Trust Co., with branches at Scott, Broussard, Carencro, Youngsville and Duson, is organized; capital $200,000, surplus $200,000; resources $3,308,565; Chas. O. Mouton, Prest.; R. O. Young, L. L. Judice, M. Billeaud, Jr., J. J. Davidson, V.-Ps.; J. C. Barry Cash.

Md., Cumberland.—A trust company, capital $1,000,000, reported organizing; State Comptroller Hugh A. McMullen and Thos. B. Finan interested.

Mo., Cole Camp.—Farmers' Bank organizing; will apply for charter; capital $20,000; surplus $2000. Directors: John Monsees, Henry

Seamon, Geo. Coleman, Theodore Cordes and others.

Miss., Aberdeen.—Commercial Bank & Trust Co. chartered; capital $100,000; W. L. Watkins, W. B. Hursey and others.

Miss., Arcola.—Bank of Arcola reported being organized by business men of Arcola and Greenville, Miss.

Miss., Avera. — Bank of Avera chartered; capital $10,000; C. H. Stevens, R. L. Walley and others.

Miss., Prairie.—Bank of Prairie chartered; capital $10,000; J. T. Evans, J. L. Barrow and others.

Miss., Union.—People's Bank recently organized with $20,000. A. I. Buckwalter, Prest.; R. G. Cooper, V.-P.; A. P. Jones, Cash.

Mo., Hendrickson.—Bank of Hendrickson organized, capital $10,000.

Okla., Marshall.—Marshall State Bank organized; capital $15,000; Arthur Anderson, Woodward, Okla., Prest.

N. C., Asheville.—Community Trust Co., it is reported, is to be organized by Wachovia Bank & Trust Co., of which T. S. Morrison is Chrmn. Board of Managers of Asheville branch.

N. C., Winston-Salem.—Wachovia Bank & Trust Co., F. H. Fries, Prest., reported organizing a trust company in Winston-Salem.

N. C., Winston-Salem.—Farmers' Banking & Trust Co., Capital $200,000, has begun business at 424 Trade St.; William J. Byerly, Prest.; S. E. Hall, V.-P.; and trust officer; T. J. Byerly, Cashier; H. L. Stone, Mgr. savings department.

Okla., Oklahoma City.—Southwest National Bank chartered, capital $250,000; conversion of Southwest Reserve Bank; L. T. Sammons, Prest.; C. T. Abell, Cashier.

S. C., Columbia.—South Carolina Securities Co., Inc., capital $10,000; Chas. H. Barrow, Albert Ehrlich, C. T. Frick; business to begin Nov. 1.

S. C., Greenville.—Liberty Life Insurance Co., capital $100,000, organized; W. Frank Hipp, Prest.; J. R. Fulmer, V.-P. and Treas.; E. Roy Stone, V.-P. and Gen. Mgr.; H. L. Vogel, Secy. (Lately noted.)

S. C., Lake City.—People's Bank commissioned; capital $10,000; petitioners: J. M. Truluck, R. W. K. Dubose, J. M. Eaddy, S. D. Rickenbaker and S. B. W. Courtney.

Tenn., Chuckey.—New bank, capital $25,000, organized; Isaac E. Broyles, Prest.; Nick P. Earnest, V.-P.; E. C. Prather, Cashier.

Mo., Jefferson City.—Building and loan association, capital $100,000 to $200,000, reported being organized by R. Dallmeyer, Hugh Stephens, A. A. Speer and others.

Mo., Monett.—Central State Bank, capital $50,000, organized. Pat Martin, Prest.; John McGrath, Cash.

Mo., Pittsville.—New bank, capital $10,000, organized. J. N. Hutchinson, Prest.; Ed Miller, V.-P.; John Hewitt, Cash.

Mo., Sampsel. — Farmers' Bank, capital $10,000, open for business. Walter Rader, Prest.; J. E. Raulie, J. N. Nulf, V.-P.'s; W. N. Williams, Cash.

N. C., Nashville.—Farmers and Merchants' Bank, capital $36,000, organized. B. J. Downey, Prest.; N. L. Strickland, V.-P.; J. W. Renshaw, Cash.

Okla., Isabelle.—Farmers' State Bank chartered, capital $10,000. Incptrs.: W. H. Stewart, H. C. Beese, Enid; E. K. Beese, Isabelle.

Okla., Newkirk. — Chamber of Commerce plans to organize a new building and loan association.

Tenn., Harriman.—First and Manufacturers' Bank chartered; capital $50,000; surplus $10,000; takes over business of First National Bank and Manufacturers' National Bank. N. Giles Carter, Prest.; W. C. Anderson, M. L. Dame, G. P. Adams, V.-P.'s; C. N. Julian, Cash.; open for business Oct. 27.

Tex., Amarillo.—Guaranty Title & Abstract Co. chartered; capital $10,000; Incptrs.: A. B. Jones, W. A. Askew and R. C. Johnson.

Tex., Henrietta.—Henrietta Abstract Co., capital $30,000. Incptrs.: J. D. Bell, W. D. Bell and A. V. Slagle.

Tex., Navasota.—Texas Loan & Trust Co., capital $50,000. Incptrs.: W. S. Craig, John D. Rogers, W. L. Steele.

Va., Fox Hill.—Bank of Fox Hill chartered; capital $10,000 to $25,000; W. R. Johnson, Prest., Rip Raps, Va.; H. F. Elliott, Secy., Hampton, Va.; H. F. Lewis, Buckroe Beach, Va., and others.

Va., Radford.—New bank, capital $100,000, being organized by J. L. Vaughan and others.

Va., Roanoke.—Standard Securities Corporation, authorized capital $25,000; L. R. Johnson, Prest.; C. C. Wilson, Secy.; J. A. Bear.

Va., Roanoke. — Cornett-Tilley Insurance Corp., capital $5000 to $50,000, chartered. Saml. M. Cornett, Prest.; M. Graham, Secy.

W. Va., Charleston.—Underwriters' Corporation, capital $25,000, chartered; Incptrs.: C. F. Turnell, J. B. Madison, F. L. Thomas, M. M. Reid and Nelson Reid.

W. Va., Williamstown. — Farmers & Mechanic's National Bank chartered, capital $40,000; Frank L. Fenton, Prest.; J. L. Lorentz, Cashier.

New Securities.

Ala., Haleyville—(Street).—Date for receiving bids for $17,000 bonds postponed until Nov. 1. J. T. Curtis, City Clerk.

Ala., Mobile—(Road).—Mobile County votes Nov. 17 on $150,000 bonds; John D. Hagan, Prest. Board of Revenue and Road Commrs. (Lately noted.)

Ark., Arkansas City—(Memorial).—Election Oct. 21 on $150,000 bonds for memorial building. Address The Mayor.

Ark., Clarendon—(School).—$12,000 6 per cent 15-year bonds Leemon Special School Dist., Monroe County, bonds purchased by Hanchett Bond Co., Chicago.

Ark., Clarendon—(School).—$10,000 6 per cent bonds, Monroe County Special Rural School Dist. 1, purchased by Hanchett Bond Co., Chicago.

Fla., Bartow — (Road, Bridge). — $200,000 bonds Special Road and Bridge Dist. 3, Polk County, purchased at $209,133 and accrued interest by C. M. Clayton.

Fla., Clearwater — (Street). — Bids opened Nov. 19 for $45,000 5 per cent 30-year $1000 denomination bonds, dated Nov. 19, 1919; W. H. Freeman, Clk.

Fla., Dade City—(Road). — Special Road and Bridge Dist. is to be created in Pasco County, and an election held to vote on $750,000 bonds. Address County Commrs.

Fla., Fort Myers—(City Bonds).—Bids received 8.30 P. M. Nov. 7 for $100,000 5 per cent 30-year $500 denomination bonds; dated Oct. 1, 1919. John W. Owens, City Clerk.

Fla., Jacksonville — (Sidewalk). — Bids received 2.30 P. M. Oct. 31 for $50,000 5 per cent. $1000 denomination bonds, dated Aug. 1, 1919, maturing serially 1922 to 1924, inclusive; John S. Bond, Chrmn. City Comsn.

Fla., Mayo — (Road, Bridge). — $250,000 5 per cent Dixie Highway Special Road and Bridge Dist., Lafayette County, bonds purchased by Geo. B. Sawyer & Co.

Fla., Miami—(Road, Bridge).—Dade County Commrs. plan to call election to vote on $90,000 bonds.

Fla., Milton—(Road, Bridge).—Bids opened Nov. 11 for $160,000 6 per cent Special Road and Bridge Dist., Santa Rosa County, bonds; dated Sept. 1, 1919; maturity 1949. H. W. Thompson, Clerk.

Fla., Ocala—(Road).—Marion County votes Dec. 2 on $1,500,000 bonds. Address County Commrs.

Fla., Palmetto — (Street, Sewer). — $16,000 street and $4000 sewer 5½ per cent $500 denomination 20-30-year bonds purchased at par and accrued interest by John Nuveen & Co., Chicago.

Fla., St. Augustine—(Sewer, Water, Street). Proposed election to vote on $500,000 bonds will probably be held in January, 1920. Address The Mayor.

Fla., West Palm Beach—(Bridge).—Palm Beach County will vote on $250,000 bonds for bridge to connect Palm Beach with West Palm Beach. Address County Commrs.

Ga., Adele—(Road).—$250,000 5 per cent Cook County bonds purchased at par by Bank of Adele and First Bank of Cook County. C. O. Smith, County Ordinary.

Ga., Albany—(Paving).—Bids received noon Nov. 11 for $81,000 5 per cent $1000 denomination bonds; dated Jan. 1, 1920; maturing serially 1921 to 1947, inclusive. M. W. Tift, Mayor. *For particulars see Proposals Department.*

Ga., Roswell—(Street).—City voted $25,000 bonds. Address The Mayor.

Ga., Cordele—(School).—Election Nov. 18 on $50,000 bonds. Address The Mayor.

Ga., Soperton—(Water, Sewer).—City voted bonds for water-works and sewerage. Address The Mayor.

Ky., Brandenburg—(Road).—Meade County votes Nov. 4 on $200,000 bonds. S. L. Morgan, County Judge.

Ky., Warsaw—(Road). — Gallatin County votes Nov. 15 on $80,000 5 per cent bonds. Address County Commrs.

La., Baton Rouge — (Road). — Bids rejected Oct. 7 for $125,000 5 per cent. 30-year $1000 denomination bonds Dist. No. 7, maturing 1920 to 1949, inclusive; new bids are to be asked; Jos. Gebelin, Prest. Police Jury, East Baton Rouge Parish.

La., Cameron—(Road).—$60,000 Dist. 5 and $27,000 Dist. 1, Cameron Parish, bonds offered for sale. Address Police Jury.

La., Clinton—(School).—$15,000 bonds School Dist. No. 5, 1-10-year serial 5 per cent $500 denomination East Feliciana Parish, purchased at $14,400 and accrued interest by E. A. Gessler, St. Louis, Mo.

La., Hahnville—(Drainage).—Bids received noon Oct. 23 for $160,000 5 per cent. 30-year serial $1000 denomination bonds St. Charles' Parish Gravity Drainage Dist. No. 1; Paul T. Montz, Prest. *For particulars see Proposals Department.*

La., Jennings—(School).—Bids received 10 A. M. Nov. 6 for $125,000 5 per cent bonds Jefferson Davis Parish School Dist. 10; dated Oct. 1, 1919; maturing serially 1920 to 1944, inclusive. J. M. Booze, Prest.; W. P. Arnette, Secy. *For particulars see Proposals Department.*

La., Jennings—(School).—Bids received 10 A. M. Nov. 6 for $110,000 5 per cent bonds Jefferson Davis Parish School Dist 1; dated

(*Continued on Page* 134)

Oct. 1, 1919; maturing serially 1920 to 1944. J. M. Booze, Prest.; W. P. Arnette, Secy. *For particulars see Proposals Department.*

La., Lafayette—(Drainage, Water, Park).—$425,000 bonds voted. Robert Mouton, Mayor.

La., Natchitoches — (School). — Dist. 3, Natchitoches Parish, will vote on $35,000 bonds. Address Parish School Board.

La., New Iberia—(School).—School Dist. 16, Iberia Parish, votes Nov. 18 on $200,000 5 per cent. 30-year bonds; L. R. Tilly, Secy. Parish School Board.

La., Oberlin—(Road).—Bids rejected Oct. 15 for $190,000 5 per cent 20-year bonds Road Dist. No. 5, Allen Parish; W. R. Hargrove, Prest. Police Jury.

La., Shreveport—(Water).—City votes Nov. 11 on $400,000 5 per cent 40-year bonds. Address The Mayor.

Md., Elkton—(Sewer).—Town plans to issue $20,000 sewer bonds. Address Town Council, W. H. Mackall, Prest.

Miss., Canton—(Highway).—Bids received noon Nov. 4 for $100,000 of authorized issue of $250,000 not exceeding 6 per cent. Madison County bonds, dated Nov. 1, 1919; denomination $500 to $1000; D. C. McCool, Clerk. *For particulars see Proposals Department.*

Miss., Cleveland — (School). — Bids opened noon Nov. 3 for $50,000 not exceeding 6 per cent $1000 denomination Cleveland Consolidated School Dist. bonds, dated March 1, 1920, maturing $2000 annually first 10-years and $3000 annual last 10-years. Address Clerk, Board of Supvrs., Bolivar County.

Miss., Indianola—(Road).—Fifth Supvrs.' Dist., Sunflower County, voted $400,000 bonds. Address Board of Supvrs.

Miss., Macon—(Road).—$87,000 6 per cent $500 denomination bonds Noxubee County Supvrs.' Dist. No. 1, purchased at $91,200 by Caldwell & Co., Jackson.

Miss., Magnolia—(School).—$35,000 5½ per cent Pike County agricultural high school bonds purchased at par, accrued interest and $350 premium by First National Bank of McComb City, and $7000 6 per cent loan warrant by county school fund at par.

Miss., Meridian—(Road).—Dist. 3, Lauderdale County, votes Oct. 20 on $75,000 bonds. A previous issue of $85,000 was declared void. W. R. Pistole, Clk. Chancery Court.

Miss., Meridian—(Road).—Bids received 2 P. M. Nov. 6 for $100,000 $500 denomination bonds Supvrs. Dist. 4, Lauderdale County; maturing 1929 to 1943, inclusive; W. R. Pistole, Clerk Board of Supvrs.

Miss., Meridian—(School).—$120,000 5¼ per cent Supvrs.' Dist. 1, Lauderdale County, bonds purchased by Caldwell & Co., Nashville; $4000 Ponta Consolidated School Bonds purchased at $4225.50 by Mrs. M. L. Moore; $6000 Suqualena Consolidated School Dist. bonds purchased by First National Bank, Meridian, at $6025 and accrued interest.

Miss., New Augusta—(School).—$15,000 bonds voted. Address School Board.

Miss., Pascagoula — (Wharf). — $75,000 bonds sold at $2483 premium to A. T. Bell & Co., Toledo, O.

Miss., Quitman — (School). — City plans to issue $35,000 bonds for water, light, etc. Address The Mayor.

Miss., Starkville—(Light, Sewer, Water).—City voted $55,000 bonds. Address The Mayor.

Miss., Wiggins — (Road). — Beats 1 and 3, Stone County, voted $30,000 bonds for improving Dixie Highway; they will be offered for sale in about 60 days. A. W. Bond, Prest. Board of Supvrs.

Miss., Yazoo City—(Road).—$150,000 bonds Beat 2, Yazoo County, purchased at par, accrued interest and $1000 premium by John Nuveen & Co., Chicago, Ill.

Mo., Anderson—(Road).—Anderson Special Road Dist., McDonald County, voted $20,000 5½ per cent 20-year bonds. They will be offered for sale about Jan. 1, 1920. Address S. B. Buck, Secy. of Dist.

Mo., Liberty — (County Bonds). — $300,000 4¼ per cent Clay County bonds recently purchased by Mercantile Trust Co., St. Louis.

Mo., Marshall—(Levee).—$50,000 6 per cent bonds Saline-Lafayette Levee Dist., Lafayette Counties, purchased by Lewis W. Thompson & Co., St. Louis.

Mo., Maryville—(Water).—$50,000 5 per cent $500 and $1000 denomination bonds purchased by Kauffman-Smith-Emert Investment Co., St. Louis.

Mo., Mexico—(Sewage).—Election Nov 10 on $25,000 sewage bonds; J. F. Harrison, Mayor.

Mo., Nevada—(Highway).—$750,000 Vernon County bonds defeated Sept. 27.

Mo., Norwood—(School).—$7500 bonds voted. Address School Board.

Mo., Paris—(Road).—$1,000,000 Monroe County bonds recently defeated; W. Frank Jones, County Clerk.

Mo., Richmond—(School).—Election Oct. 21 on $10,000 5½ per cent 1-10-year serial $1000 denomination bonds. Date for opening bid not decided. B. E. Shoturee, Clk.

Mo., Richmond—(Road).—Ray County votes Nov. 22 on $1,300,000 bonds. Address County Commrs.

Mo., Versailles.—Morgan County votes Nov. 11 on bonds. Address County Commrs.

N. C., Asheville — (School). — Bids received noon Nov. 18 for $50,000 5, 5½ or 6 per cent. 20-year bonds Emma School Dist., dated Nov. 1, 1919; denomination $1000; Ester Terrell, Supt. Public Instruction, Buncombe County.

N. C., Charlotte — (School). — City contemplates issuing about $700,000 bonds. Address School Board.

N. C., Clinton—(Road).—$100,000 5 per cent 20-year Sampson County bonds purchased by Weil, Roth & Co., Cincinnati, O., at par, less expenses.

N. C., Durham—(School).—City will vote on $650,000 bonds. Address Board of Education.

N. C., Coats—(Road).—$50,000 6 per cent. $1000 denomination bonds Grove Township, Harnett County, dated Oct. 1, 1919, maturing 1949, purchased at par, accrued interest and $1607.50 premium by Spitzer-Rorick & Co., Toledo.

N. C., Fayetteville—(Wharf).—Election is to be called to vote on bonds to construct wharves on Cape Fear River. Address The Mayor.

N. C., Gastonia—(Road).—Bids received 2 P. M. Nov. 18 for $500,000 5 per cent $1000 denomination Gaston County bonds, dated Oct. 1, 1919; maturity $17,000 annually Oct. 1, 1921 to 1931, inclusive; $18,000 annually Oct. 1, 1932 to 1949, inclusive. O. B. Carpenter, Clk. Board County Commrs. *For particulars see posals Department.*

N. C., Lexington—(School, Street).—Election Nov. 25 on $75,000 school bonds; Town Commrs. authorized issue of $250,000 street bonds; no election necessary.

N. C., Lillington—(School). — Bids received noon Nov. 10 for $15,000 6 per cent 20-year Lillington High School Dist., Harnett County, bonds. Address County Board of Education, B. P. Gentry, Clk. *For particulars see Pro-Proposals Department.*

N. C., Lillington — (Road). — Bids received noon Nov. 10 for $15,000 6 per cent 20-year Lillington Township, Harnett County, bonds, dated Jan. 1, 1920; J. W. Halford, Chrmn. Township Commission.

N. C., Monroe—(School.—$50,000 5½ per cent. bonds sold at $51,166.50; R. W. Allen, Secy. Board School Trustees.

N. C., Monroe—(School).—$50,000 5½ per cent $1000 denomination bonds Monroe Graded School Dist., purchased at $51,186 by F. C. Hoehler & Co., Toledo, O.

N. C., Nashville—(School).—Bids received 11 A. M. Nov. 3 for $20,000 5½ or 6 per cent. 1-19-year serial Nash County bonds; denomination $100 or multiples thereof; L. S. Inscoe, County Supt. *For particulars see Proposals Department.*

N. C., Wentworth—(Road, Bridge).—Bids received 2 P. M. Oct. 20 for $300,000 5 per cent $1000 denomination Rockingham County bonds, dated Oct. 1, 1919; maturity 1920 to 1944, inclusive. Hunter K. Penn, Clk. Board County Commrs.

Okla., Carnegie—(Water-works).—Election soon on $24,000 bonds. Address The Mayor.

Okla., Chickasha — (Park). — Bids received 8 P. M. Oct. 23 for $100,000, $1000 denomination not exceeding 6 per cent 10-25-year bonds. S. C. Durbin, Mayor; E. G. Reynolds, City Clk.

Okla., Cushing—(City hall, etc.).—City voted $40,000 city hall; $10,000 auto fire truck bonds. S. P. Alles, Mayor.

Okla., Duncan—(Courthouse, Jail).—$150,000 5½ per cent 25-year serial Stephens County bonds recently voted. Address County Commissioners.

Okla., Durant—(Water).—$25,000 bonds voted. Address The Mayor.

Okla., Hobart—(Water).—Oct. 9 city defeated $120,000 5 per cent 25-year water-works extension bonds. S. B. Nix, Mayor.

Okla., Pawhuska—(School).—$12,000 Pearsonia School Dist., Osage County, bonds, recently voted, have been sold. Address Board of Trustees.

Okla., Tahona — (School). — $4800 bonds voted; purchased at a premium by A. B. Green, Poteau. Address Board of Trustees.

Okla., Tecumseh — (Road). — Pottawatomie County townships will vote in November on bonds as follows: Earlsboro, $50,000; Davis, $100,000; Dent, $50,000; Bales, $100,000; Brinton, $75,000; Forrest, $50,000; Rock Creek, $75,000; total, $500,000. Address County Commrs.

S. C., Greenville—(School).—Trustees Standing Springs School Dist., Greenville County, plan to issue bonds.

S. C., Lake City—(Water).—$150,000 6 per cent bonds purchased by J. H. Hilsman & Co., Atlanta, at par and interest.

S. C., Orangeburg — (Municipal Improvement).—City votes Nov. 8 on $100,000 gas plant; $50,000 sewer; $45,000 water and light; $610,000 street-improvement bonds. Address The Mayor. (Lately noted.)

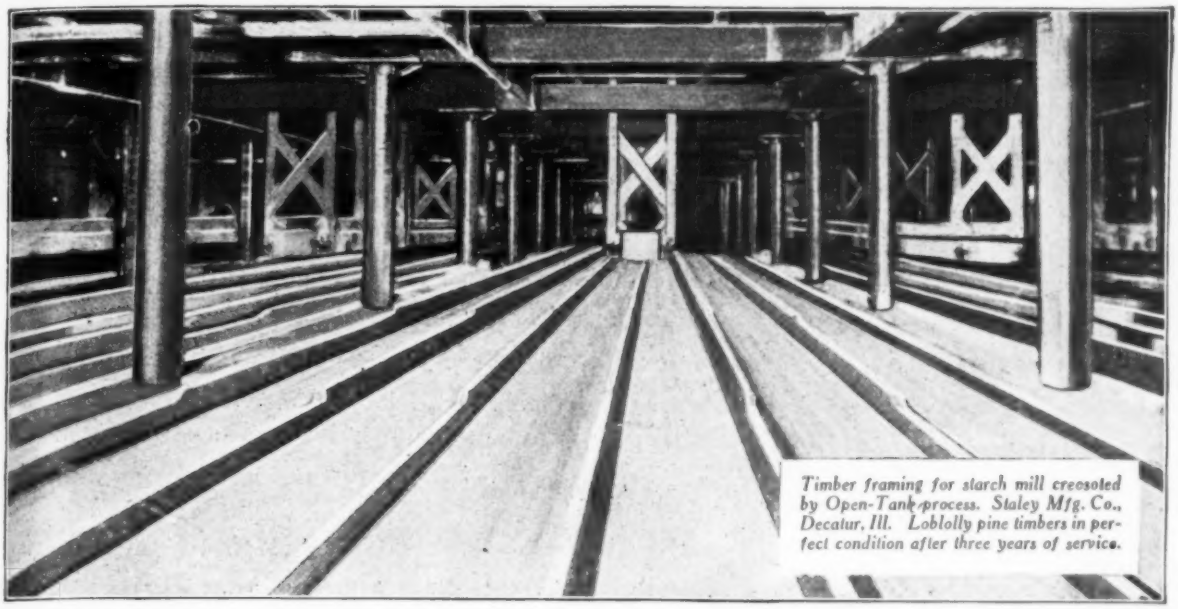
Tenn., Camden — (Road). — Bids received noon Oct. 25 for $50,000 of authorized issue of $200,000 5 per cent $1000 denomination Benton County bonds; dated Oct. 1, 1919; maturity $10,000 annually, beginning March 1, 1921. S. A. Clement, County Judge.

Tenn., Cleveland—(Street).—$50,000 5½ per cent $500 denomination bonds recently purchased by John Nuveen & Co., Chicago.

Tenn., Gainesboro—(Road).—Bids being received for $100,000 5 per cent. 30-year $1000 denomination bonds; to be dated probably Dec. 30, 1919; B. C. Jones, Chrmn. County Commrs; G. Lee McGlasson, Clerk County Court.

Tenn., Greenfield—(Water, Light). — Bids opened Oct. 28 for $70,000 6 per cent 20-year $500 denomination bonds; dated Oct. 1, 1919. Clyde Ezzell, Mayor.

(*Continued on Page* 136)



Timber framing for starch mill creosoted by Open-Tank process. Staley Mfg. Co., Decatur, Ill. Loblolly pine timbers in perfect condition after three years of service.

A Lesson in Conservation—

A little over three years ago a progressive engineer saved thousands of feet of timber from the scrap heap, incidentally saving many hundreds of dollars, by using creosoted timber in a starch mill—an experiment looked upon as dangerous by other members of the profession.

The floor framing for the seven floors of the table house, consisting largely of 12"x12" and 6"x12" loblolly pine timbers, would not have justified the cost of laying alone because of its rapid decay under the prevailing conditions.

It was thought that creosoting the lumber *might* harm the starch. Nevertheless lumber creosoted by the Open Tank Process was employed. All details were properly attended to, and the result was a huge success.

The Open-Tank Process: *Simple wooden tank (lined with sheet iron) equipped with steam coils and small derrick. Upon expiration of the hot treatment, both oil and timber are permitted to cool instead of being transferred to a cold tank. Fence surrounding this plant has been creosoted.*

Barrett

Carbosota

Grade-One Liquid

Creosote Oil

After three years of use, a length of service which untreated this timber would not have given, all woodwork was found in excellent condition.

It was also found that the starch had not been affected the least bit by the creosoting.

Thus, Conservation and Economy were both served, and the non-pressure treatment, properly applied, again proved *worth while.*

Obviously, Carbosota Creosote Oil —the universal standard wood preservative for non-pressure treatments—was used.

(Green wood cannot be effectively creosoted by non-pressure processes. It should be air-dry. In regions of moist, warm climate, wood of some species may start to decay before it can be air-dried. Exception should be made in such cases and treatment modified accordingly.)

Similar opportunity for *profit* by *saving wood from decay* exist in almost every industry. When building, request the advice of our experts which is obtainable gratis by addressing the nearest office.

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THE BARRETT COMPANY, Ltd.: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.

Tenn., Jackson—(Drainage).—Bids received 11 A. M. Nov. 5 for $82,500 6 per cent. 5-20-year serial bonds Drainage Dist. 4, Madison County; J. T. Rothrock, Jr., County Judge.

Tenn., Knoxville—(City Improvement).—Bids received 7.30 P. M. Oct. 21 by John L. Greer, City Recorder and Treas., for $250,000 5 per cent. $212,000 6 per cent. 1-5-year serial $1000 denomination bonds; dated Oct. 1, 1919.

Tenn., Somerville—(Road).—Fayette County Court voted to issue $500,000 bonds.

Tenn., Spencer—(Road).—Van Buren County Court authorized issuing road bonds.

Tenn., Tiptonville—(Waterworks).—Bids received 2 P. M. Nov. 10 for $7000 6 per cent 20-year $500 denomination bonds, dated Oct. 1, 1919. C. B. Tipton, Mayor.

Tenn., Union City—(Road).—$150,000 5 per cent 20-year Obion County bonds purchased by Kauffman-Smith-Emert Investment Co., St. Louis.

Tex., Austin.—Bonds approved by Atty.-General: $300,000 5 per cent Smith County road; $5500 5 per cent 10-20-year Coryell County Common School Dist.; $3000 5 per cent 1-20-year Travis County Common School Dist. No. 17; $300,000 Smith County road; $75,000 Bryan Power Plant; $40,000 Dist. 19; $85,000 Dist. 16; $50,000 Dist. 13; Collin County 5½ per cent serial road; $200,000 5½ per cent Trinity County Road Dist. 2; $10,000 5 per cent 5-40-year Kaufman County Common School Dist. 10.

Tex., Bellville—(Road).—$1,500,000 Austin County bonds voted. Address County Commissioners.

Tex., Big Springs—(Street).—$5000 6 per cent. 1-10-year street-improvement warrants purchased by J. L. Arlitt, Austin, Tex.

Tex., Breckenridge — (Road). — Stephens County plans election on $3,500,000 bonds. Address County Judge.

Tex., Coleman—(Road).—$500,000 Precinct 1, Coleman County, bonds recently voted are 30-year serial 5 per cents. Address County Commrs.

Tex., Eastland—(Road).—$2,000,000 of authorized issue of $4,500,000 5½ per cent 1-30 year serial $1000 denomination Eastland County bonds are to be offered; date for opening bids not decided. C. R. Starnes, County Judge.

Tex., Highland Park P. O., Dallas—(Street).—$110,000 5 per cent $1000 denomination bonds voted Oct. 4; maturity Oct. 1, 1959; bids are to be opened as soon as possible. P. G. Claiborne, Mayor.

Tex., Longview — (Sewer, Street). — $25,000 sewer, $25,000 street 6 per cent 20-year bonds purchased by Terry, Briggs & Co., Toledo, O.

Tex., Lufkin—(Street, Power).—City votes Nov. 19 on $100,000 street and $50,000 sewer bonds. Address The Mayor.

Tex., San Augustine—(Road).—$35,000 5½ per cent $500 denomination bonds Road Dist. 2, San Augustine County, purchased by Hanchett Bond Co., Chicago.

Tex., Terrell—(Water).—$200,000 bonds voted. Address The Mayor.

Tex., Waxahachie—(Street, Water, Sewer). City voted $295,000 street, water, sewer, school, park-improvement bonds. Address The Mayor.

Va., Cumberland — (Road). — Bids opened Nov. 11 for $20,000 of authorized issue of $65,000 20-year Hamilton Dist., Cumberland County bonds; denomination $100 or more. R. Q. Garrett, Clk.

Va., Orange—(Water-works).—$70,000 bonds recently voted has been sold. Address The Mayor.

W. Va., Fairmont—(Bridge).—$175,000 5 per cent 1-30-year serial $1000 denomination bonds voted; dated Nov. 1, 1919. Date for opening bids not decided. Albert J. Kern, City Clk.

W. Va., Huntington—(School).—City votes Nov. 15 on $645,000 bonds. Address Board of Education.

W. Va., Logan—(Road).—Logan County reported planning $1,000,000 bond issue. Address County Commrs.

W. Va., Ronceverte—(Water, Sewer, etc.).—City voted $20,000 bonds for water-works, sewers, etc.; bids for same will be opened noon Nov. 1. Address The Mayor.

W. Va., Parkersburg—(School).—Election Oct. 25 on $12,000 Walker Dist., Wood County, bonds. Address County Commrs.

W. Va., Frankford—(School).—Frankford Dist., Greenbrier County, will vote on $25,000. Address School Board.

W. Va., Warwood, P. O. Wheeling.—(Paving, Sewers).—$150,000 6 per cent 10-year $1000 denomination bonds voted; date for opening bids not decided. Address C. H. Eberts.

W. Va., Woodsdale, P. O. Wheeling—(Street).—Bids received noon Nov. 8 for $100,000 5 per cent 10-30-year $1000 denomination street-improvement coupon bonds. Address R. B. Naylor, 305 National Bank Bldg., Wheeling.

Financial Notes.

First State Bank, Wortham, Tex., increased capital to $50,000.

First Bank of Fairfield, Ala., increased capital from $25,000 to $50,000.

People's Bank, Selma, N. C., increased capital $15,000 to $25,000.

Bank of Grundy, Grundy, Va., increased capital from $50,000 to $75,000.

New Amsterdam Casualty Co., Baltimore, Md., increasing capital from $1,000,000 to $1,250,000.

WORLD COTTON CONFERENCE

SUPPLEMENT TO

Manufacturers Record

EXPONENT OF AMERICA

VOL. LXXVI, No. 17 WEEKLY. | BALTIMORE, OCTOBER 23, 1919 | $6.50 A YEAR. SINGLE COPIES, 15 CENTS.

THE WORLD COTTON CONFERENCE

The greatest convention ever held to discuss cotton and all the wide ramifications of this industry was that of the World Cotton Conference in New Orleans last week. The foremost cotton manufacturers of Europe, whose trade ramifies throughout the world, the cotton manufacturers of this country, the producers and the handlers of this staple, were in attendance in large numbers. Bankers were there who realized that to a far larger extent than any other crop in the world, measured by value, cotton enters into world finance. Not a banking house in Europe, America or the Orient can ignore the influence of the South's cotton upon world finance and industry.

No other crop is so universally discussed; no other is so influential on business affairs. The value of the corn crop annually exceeds the value of the cotton crop, but corn is largely consumed where it is produced, while cotton is largely exported to other countries, and much of that consumed in this country is shipped to New England. The South's consumption of cotton is steadily increasing, but this section takes as yet only about 33 per cent of an average yield, the balance being shipped to the North, to England and to the Orient.

Upon the South's cotton depends the safety of this vast industry in Europe and much of Japan's. Great Britain alone has more than 57,000,000 spindles, as against the 33,000,000 spindles in the United States.

England as well as the Continent must of necessity look to the South for the bulk of its supply with which to feed these spindles.

The supply is decreasing, while the spindles are ever increasing, and the world is ever calling for more and more cotton.

For more than half a century the South has carried the world's burden in providing the raw material for clothing the world to the vast enrichment of other countries and to its own impoverishment.

The South has been drained of its very life blood in energy and soil to furnish the cotton for the spindles of the world, and it has clothed hundreds of millions of people who without its cotton would have sunk back into barbarism. But the world has never paid the South an adequate price for cotton. Other regions and other countries have grown rich on turning the South's cotton into the finished product, and to a very large extent their vast financial power has been used to keep down the price of cotton.

There has been an insistent cry for years for more and more cotton and lower and lower prices. Any man who attempts to make light of this charge, or to deny its correctness, is either incomprehensibly ignorant of the influences which have been at work to depress the price of cotton while the manufacturers were ever crying for more cotton, or else he makes a statement which lacks the foundation of fact.

For more than a quarter of a century the Manufacturers Record has ceaselessly antagonized this effort to depress the price of cotton, and not until within the last few months has any cotton manufacturer, so far as we know, ever even suggested that manufacturers had not sought to break down the price of cotton, although some cotton manufacturers, to their everlasting credit, have in the past been broad enough to urge that the cotton manufacturing industry should recognize the right of the cotton growers to higher prices, and in doing so have suggested that manufacturers should look with favor, rather than with disfavor, upon higher prices. It is well that these facts should be clearly understood, for they have a great bearing upon the final outcome of the influence of the World Cotton Conference.

The importance of this conference has made it necessary for the Manufacturers Record to cover its entire proceedings through the publication of this supplement devoted wholly to a report of the convention at New Orleans and the speeches made in connection therewith.

We are sure that out of this conference will come a broader and more harmonious spirit of friendship between the producer and the consumer, between the man who toils to grow the cotton and the man who turns it into the finished product. Cotton should be a cementing influence to strengthen the friendly relations between New England and Great Britain on one side, and the cotton producers of the South on the other. It is entirely within the power of the manufacturers of New England and Old England to accomplish this end, and we believe that this conference will bring about that much-to-be-desired end.

Exponent of America

IN this hour of turmoil, when social unrest endangers our civilization, our supreme need is the awakening of the spirit of Americanism, of patriotism, of a broad-minded vision of all the great issues we face, that with calmness and courage the nation may go forward on its mighty mission of standing for individual and national liberty.

As the Exponent of America the Manufacturers Record is more broadly discussing these questions of the day which relate not alone to the welfare of this country, but which touch on the business interests of the world, than any other publication in America.

Nowhere else can the business man find so broad a treatment absolutely unbiased by partisanship of all the great questions of labor, of business development and of the problems which relate directly to the saving of America from the dangers of Socialistic and Bolshevistic unrest.

The Manufacturers Record is seeking to develop the spirit of Americanism as against weak internationalism.

In its broadest sense, the Manufacturers Record is not an industrial publication, but a journal of information, an EXPONENT OF AMERICA, and all that makes for the safety of this country from the dangers which confront it.

We invite a careful study of the Manufacturers Record and the work which it is doing. No business man, it matters not what may be his business, or his profession, or his place of residence, can miss reading the Manufacturers Record, the EXPONENT OF AMERICA, without missing much that is best in American life today.

Subscription price, $6.50 a year.

Baltimore, Md.

Supplement to

Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. LXXVI, No. 17 Weekly. | BALTIMORE, OCTOBER 23, 1919 | $6.50 a Year. Single Copies, 15 Cents.

THERE IS NO MORAL OBLIGATION RESTING UPON THE SOUTH TO RAISE CHEAP COTTON.

THE old idea that there was some moral obligation resting upon the South to produce cotton in order to meet the ever-increasing world demand for this royal staple, regardless of price, was pretty well knocked to pieces at the World Cotton Conference. There may still be a few people who take that position, but not many.

If those who take this view would analyze the matter for a moment, they would see the absurdity of their position. Let us say, for instance, that John Doe, living in Alabama, Mississippi or Texas, has 100 acres of land on which he can make more money by diversified farming than by raising cotton, and in doing so enrich his soil and diversify his thoughts. Is there any particular obligation resting upon John Doe to raise cotton on this farm instead of wheat, corn, cattle and hogs? To ask the question immediately answers it. It is his duty, in this case, to raise the crop which will give him the largest measure of profit, since there is no moral obligation whatsoever resting upon him to produce a cotton crop at a smaller profit than a grain crop at a larger profit. Moreover, in raising wheat, corn, hogs and cattle he is increasing the world's supply of foodstuff, and the world is short of food. Famine treads close upon the heels of production. We are never as much as one crop ahead of world starvation.

Those who have taken the ground that in some way the South has been divinely commanded to raise cotton to its own impoverishment have thought in very narrow terms. Their vision does not extend beyond their own factory doors, because they have thought only in terms of cotton and their ability to buy it and furnish the finished product to the consumers. They have not looked at the question at all from John Doe's standpoint and his moral obligation to care for his own family by producing the thing which gives them larger comforts and conveniences of life, and which, at the same time, contributes to the world's food supply.

There is only one possible way in which the South can be induced to increase its cotton production, and that is through high prices, and by high prices we mean prices which would yield as large profit for the producer as any other form of agriculture. Even this, however, would be a misfortune to the South if it brought about any reduction in the production of food. If cotton sold at $1 a pound and piled its billions of wealth into the South, it would be a misfortune for this section to so concentrate its attention upon cotton as to lessen its interest in diversified agriculture. It can broaden its life through a more general agricultural prosperity than it is possible to secure with cotton alone, regardless of how high cotton may be. But if the world is ready to pay the South a profitable price for cotton, a price that gives a good living wage to the laborer in the cotton field, a price sufficient to enable him to send his children to school and to keep his wife at home, a price which yields a good income on the capital invested in the land and equipment, a price which gives to all engaged in producing cotton an income relatively as great as that of the skilled laborer in the factory, or of the farmers of the West who have grown rich upon wheat, corn and livestock, then the South can afford to raise a larger crop than it has produced of recent years, but on no other condition can this section undertake to produce more cotton than it has been doing. It must feed itself first and help to feed the world, and make cotton a secondary crop, otherwise it will do an injustice to itself and to the world's food supply.

The constant reiteration that if the South did not increase its cotton crop Europe would turn to Africa or Asia or South America for cotton is just a little over one hundred years old. It is a threadbare threat. It is weak and decrepit from old age, and it never had an excuse for having been conceived in the brain of an intelligent man. If Europe wants to raise cotton in Asia and Africa and Brazil, let it do so. It threatened for over one hundred years to do it, but sensible European cotton manufacturers knew that the threat was childish and simple. Moreover, the South does not care if Europe can do so. The South would have been richer if it had never raised a bale of cotton. It could today abandon cotton growing and turn to diversified agriculture with far less loss to itself than to Europe. Some years ago D. A. Tompkins, one of the most brilliant political economists and cotton manufacturers the South ever produced, said that if Africa or Brazil could raise cotton at a lower cost than the South, then let them do it, and when the Southern farmer turned wholly from cotton production to diversified agriculture, the Southern cotton manufacturers would be in Africa and Brazil competing with the European spinners for their cotton. Fortunately, for the good of the whole trade, some English speakers at the conference freely admitted that no other country could be depended upon to make any serious increase in cotton production for at least 20 years to come, and that the world must depend upon the South to meet its increasing needs. The recognition of the South's permanent supremacy in cotton production, for that is the real meaning of these facts sweeps away all the threats of a hundred years to beat down the price of cotton by raising it in Africa, in India, in Brazil and elsewhere. It would be well, therefore, for cotton manufacturers to understand once and forever that

(1.) The South is under no moral obligation to raise cotton.

(2.) The South will not raise more cotton unless the price yields a very large profit duplicating to the growers the profits made by the spinners in this and other lands.

(3.) That if spinners can develop cotton growing in other lands, the South neither fears the rivalry nor concerns itself as to the outcome.

(4.) That the South is pre-eminently suited by soil and climate for grains and grasses and for livestock and a wide diversity of agriculture, which, if fully developed, would put this section far ahead of the wealth of the West.

(5.) That all talk about the South's moral responsibility to raise cotton and about selling it at a low price to stave off competition from other countries is wholly visionary, and has about as much foundation as the soap bubbles which children send floating off into the air.

Cotton Manufacturers and Others, European and American, Voice Their Views on the Good Work of the World Cotton Conference

[Special Dispatch to Manufacturers Record.]

Memphis, October 17.

The two special trains of foreign and American delegates to the World Cotton Conference, just concluded in New Orleans, stopped at Scott, Miss., on the way to Memphis. Here they inspected the cotton gin and compress plant of the Mississippi Delta Planting Co., which is controlled by English capital, one of the leading interests being Sir A. Herbert Dixon, an internationally known cotton manufacturer, and who has just been elected president of the Permanent Organization of the World Cotton Conference. This plantation consists of 35,000 acres, and last year there was raised here 11,790 bales of cotton. None of this cotton is sold in this country, but is shipped direct via New Orleans to the Fine Cotton Spinners and Doublers' Association, of which Sir A. Herbert Dixon is also president. The method of baling at this compress is a striking sample of the character of baling which could be followed by the Southern cotton grower to his decided advantage, as these bales were splendid examples of gin compress baling, and were covered in a way that met with praise on the part of the visitors.

In Memphis the delegates were carried through the tremendous cotton warehouses of the Memphis Terminal Corporation, and the details of operating this immense warehouse were explained and illustrated, and the modern and efficient equipment for handling cotton with the greatest facility was commented upon most favorably by the visitors.

Foreign and Eastern delegates alike are enthusiastic about the trip and the value to all cotton interests of this intermingling of producers and consumers. It is especially noteworthy that it has been freely admitted that the world must look to the South for its cotton supply, and that for 20 years at least there can be no serious increase in production elsewhere. The views of some of the delegates, as given to the correspondent of the MANUFACTURERS RECORD after leaving New Orleans, follow:

A. B. Ireland, director Manchester Chamber of Commerce and Manchester Cotton Association, England, said: "I think the conference was a good thing, because it has brought all classes of the cotton industry together from the planter to the manufacturer, and any differences which have arisen in the past have been fully discussed. I think that it will make future business much easier for everybody.

"Speaking as a cotton man, I think one of the most important resolutions passed was the one relating to the net-weight contract, which will do away with the old-fashioned 1 per cent franchise. I hope that the tare question, now that it has been fully discussed, will be remedied, as the condition of American cotton landing in Liverpool is not better than it was 50 years ago, while the Egyptian cotton, weighing 200 to 300 pounds per bale more, is landed in a perfectly neat condition.

"We thoroughly appreciated the opportunity of seeing the cotton fields, ginneries, warehouses and mills. We had often heard of the hospitality of the South, but had no idea it was so boundless as that which we have received."

George A. Heginbottom, delegate Manchester Cotton Association, England, managing director the Junction Mills: "The very fact of having held the conference at all, and the fact of having had the various questions discussed so widely by the various groups, will have a tendency to ultimately place the whole cotton business on a sounder basis. I do not expect any immediate result, but at any rate if it resulted in the adoption of the net-weight contract and in bringing substantial improvement in the baling of cotton, then on the score of these two points alone the conference will not have been in vain. We all recognize that the wheels of business are better oiled by personal contact than by correspondence.

"From the social point of view, one has only to say the whole experience of the trip has been most enjoyable from start to finish, not only from the laying open by our friends of all channels of information, but the way in which they have vouchsafed their own expressions to us, also on account of the boundless hospitality we have received at all parts of our journey. The fact that we have come into contact with the grower will pave the way for better understanding in the future."

J. L. Edmondson, secretary Federation of Calico Printers, Manchester, England:

"The conference was more successful than one could have hoped. To get together representatives from every section having common interests and have everybody's viewpoint brought before every other section is bound to help in solving the problems of the whole industry. I think that though the convention resolutions have no binding effect on anyone, the fact that they are there on record as the conclusions of representative delegates is very significant, and the fact that tentative agreement was reached on so many points was really remarkable. Apart from the value of the convention as a convention, enormous benefits are sure to follow the coming together of so many delegates with their numerous exchanges of views on the train on different subjects. Speaking for the finishing section of the trade, nothing could exceed the courtesy and spirit of friendliness and the obvious desire of those American finishers whose plants were visited to show and explain everything they possibly could.

"Whether or not the convention develops into a permanent organization with some kind of executive powers, it would be a mistake not to have another meeting at the designated time two years hence. By that time a great many of the resolutions will probably have been acted upon, or at least opinions on them will have begun to crystallize, and it should be possible to make even more progress than has been made this year."

J. T. Gee, Williams Deacons' Bank, Ltd., Bolton, England: "We learned a great deal from each other, and conversations we had brought us a great many illuminating ideas. We are beginning to see things more in parallel lines, and I think this will broaden the views of both sides. The bringing of us into touch with the actual growers of cotton and the life of those who labor in the fields and the conditions under which they live put us in a much better position to judge of what cotton is before it is in the hands of the consumer. Personally I think it is a grand thing that you have colored labor to deal with the cotton picking. We think that in England we should have reduced the standing charges of handling cotton by bringing under one head the ginning and compressing instead of being divided as it exists in many cases at the present time. In the aggregate the mere cost of handling from the ginner to the compressor must be a very considerable sum, and the bringing together of these two processes under one roof would mean an enormous saving. It was a great deal of pleasure for us to see the up-to-date mills and factories for spinning, dyeing, bleaching and manufacturing, and being informed that most of these mills and works are working under the utmost pressure and can only meet the demands of their own trade. Several places, we understand, are about to double their

plants to meet the present demands for cloth. It is a healthy sign now to note the work for research in the cotton trade to produce and improve the staple quality of cotton, and the forward move in the cause of education which is being developed in every locality struck everyone very favorably, and the result will be the greatest benefit, both to employer and employe."

George Otis Draper, Hopedale Manufacturing Co., Milford, Mass.: "Everybody entered into the spirit of determination to do something. I was very glad to see the get-together spirit manifested at this conference at New Orleans, and I think a great deal will come out of it.

"I was very much impressed with the honesty and sincerity of the cotton growers as a class. I think that they were very well represented by the men selected to attend the conference, and they showed a very clear grasp of the situation and spoke well and made a very distinct impression on the convention with their arguments. From mingling with the foreign delegates I think they appreciate as never before the necessity for paying a good price for cotton, and they realize the probability they may never buy cotton again at the old figures. There will never be any more five or six-cent cotton. The industry will have to be adapted to higher prices for cotton. Of course, this year we know that, but I mean for many years ahead."

Frank Moore of Moore, Eady, Murcott & Goode, Ltd., Leicester, England: "Speaking only as a hosiery and underwear manufacturer, and, indeed, only as what is called here a knit-goods man, I cannot count as a cotton man, by which is generally understood either a spinner of cotton or a weaver of cotton cloth. As a delegate of the Leicester Chamber of Commerce, and therefore generally interested, I think the World Cotton Conference should be of immense value in bringing together all parties concerned in this great product—cotton—and I am sure that great practical results will follow.

"It is impossible to speak too highly of the generous hospitality and courtesy we have enjoyed throughout, especially among the manufacturers in our line of business."

J. G. G. Ledebaer, Enschede, Holland: "One of my impressions is that in the South, still a land of nearly unlimited natural resources, there was the absence of traffic on the inland waters, undoubtedly the cheapest means of transportation imaginable. This struck me quite as much as the huge acres of undrained swamps, the rich soil of which might produce millions of bales of cotton.

"The white laborer in the South seemed to me to be of a better class than the New England work people, though not so well dressed. As regards the possibilities of another cotton conference, I think that to bring cotton growers and spinners in closer touch I should advise not to try for a record attendance nor for speed work, as neither of the two produce thorough work."

Richard Hamer, Manchester, England, president Manchester Cotton Association: "I have heard much of the South's hospitality, therefore on leaving New York I did so feeling sure that the delegates from overseas would have a warm welcome. I and the other delegates were, however, astounded at the kindly and generous courtesies extended to all, first at Charlotte, N. C., then Greenville, Lagrange and New Orleans.

"Concerning the conference, I regard it as serving two most important objects; first, it helped to bind together still closer those ties of friendship between America and Great Britain, and this I look upon as of vital importance having regard to the League of Nations' treaty and that upon America and Great Britain to a large degree rests the onus of maintaining peace and fair play.

"Secondly, the opportunities which the World Cotton Conference gave to all sections of the cotton trade, from the grower to the seller of the finished articles, to discuss their various problems, must be extremely useful. I was hopeful that as a result of the conference the South would take steps to secure an improvement in the baling of so valuable a product as raw cotton and that eventually cotton would be sold net weight less actual weight of tare, and that the cotton-growing States would compel the growers and all handlers of cotton to give proper protection to the bales, so that the cotton should not be damaged by the weather by reason of its being left out in the open. This would in itself mean a great saving to the South, as it would practically do away with country damage."

Arthur R. Marsh, member New York Cotton Exchange and editor Economic World: "This conference in New Orleans is the first example we have in all history of the bringing together of all the essential elements in one of the greatest of all industries. At this conference we have representatives of cotton growers, cotton merchants, cotton manufacturers, and of the various subsidiary manufacturers, including dyestuffs, machinery, etc., and of the merchants who distribute the various products of cotton manufacture. Up to the beginning of the war there was a tacit assumption throughout the cotton industry that there was a fundamental divergence of interest between those different elements of the cotton industry taken as a whole. The farmer who grew cotton looked upon the cotton merchants who bought his cotton as generally working in a direction opposite to the interest of the farmer. He thought of the cotton merchant as always trying to depress the price of the farmer's product. The merchant, on his part, was inclined to regard the farmer as exorbitant in his demands and as being in a position where he must continue to raise cotton on the best terms the buyers would give him, whether those terms were satisfactory to him or not. The cotton manufacturer was perpetually at war with the cotton merchant, believing that the cotton merchant speculated at the manufacturer's expense. A similar feeling existed between the cotton manufacturers and the wholesale and retail merchants of cotton goods. In other words, all along the line there was a clash of interests producing antagonisms of all kinds. Every wide fluctuation in the market price of cotton or of cotton goods gave rise to bitter recriminations and charges of unfair and improper conduct on the part of someone or other of the cotton industry. Further than this, the diversity of interests and the antagonisms arising therefrom were international as well as domestic. The cotton manufacturers of Europe looked upon the American cotton producer as excessive in his demands, while the American cotton producer thought of the European manufacturer as his natural enemy. The great variety of commercial misunderstandings was occasioned by this state of things in the cotton industry as it is in other lines of industry. The great accomplishment of the New Orleans conference is that it has marked the beginning of what may be hoped to be a permanent co-operation rather than antagonism between the hitherto warring elements of the cotton industry. Representatives of all these elements have had an opportunity to see each other, to learn from each other what the real troubles are here and there and discuss together reasonable means of mitigating these troubles. It has been very apparent that the representatives of European countries, from their discussion with cotton producers of America, have obtained an entirely new view of the great question of the cost of producing cotton in the United States and of the compensation which the consumers of cotton should pay for the cotton they require. On the other hand, it has been equally clear that the cotton producer has derived a wholly new idea of the complaints of the foreign users of cotton about the wasteful and extravagant methods of baling and warehousing cotton in this country. It is certain that one result of the conference will be acceptance by the farmers all over the South of the principle that the world at large is entitled

to have the cotton which the South produces properly prepared for the market, properly warehoused, protected from the weather, properly transported to our ports, and in general properly handled so that it may reach its foreign destination undamaged and in suitable condition for economic use in the mills.

"Another matter about which everybody concerned has learned much at the conference is the necessity of a co-ordinated and efficient method of financing cotton both while it is carried in the United States and while it is in course of exportation. It has been brought out particularly that proper warehousing and proper financing go hand in hand, and that our former haphazard methods involve an amount of economic waste which is no longer tolerable in view of the increased cost of producing cotton and the constant diminution of the annual supply.

"These seem to me to be the primary points of the conference, and I anticipate that in the near future the developments along these lines will have very great importance both for cotton producers and manufacturers in the United States, as well as abroad, and for the national economy of this country. Besides these principal matters, of course, a large number of more or less technical matters of which there have been difficulties in the cotton industry have been threshed out in the various committees and classes constituting the conference. This is an important gain, but it remains true that the most important achievement of all was the getting together of the representatives of all the interests involved in the production, manufacture and distribution of cotton and cotton products. The inauguration of a permanent World Cotton Conference will, it is to be hoped, not only confirm and perpetuate what has been accomplished in New Orleans, but will steadily increase the sympathetic relations between all classes of persons everywhere who are immediately concerned in cotton and the cotton industry."

George M. Massey, New York representtive of the Manchester Ship Canal of England: "It was my impression that delegates representing various phases of the cotton industry coming to the convention with more or less fixed ideas as to the particular points which concerned them and with certain fixed attitude, all had their horizons greatly broadened and enlarged by the contact with the other interests. The general result is that each and all of them now have a clearer understanding of the difficulties and conditions which confront the others. The result is bound to be beneficial from all points of view.

"The visits to the cotton fields, ginneries, warehouses and mills were a revelation to some who had never had a close view of the various processes through which cotton goes from the actual grower to the actual manufacturer and consumer.

"The opportunities for inspecting the cotton mills and the facilities given without reserve for seeing everything that could possibly interest them was greatly appreciated and commented upon by all the foreign visitors, as were also the enthusiastic receptions and boundless hospitality shown them by their hosts at the various stopping places."

Albert Greene Duncan, former president National Association of Cotton Manufacturers, Boston, Mass.:

"The most important thing, I think, that happened at this conference was the knowledge which I hope the farmers gained of the personalities of the manufacturers. There has always been a feeling among farmers that manufacturers were his enemies and were always trying to hammer down the price of cotton all they could. I hope they realize better now that the manufacturers have problems of their own just about the same as the farmer has his problems, and the price which the manufacturer can afford to pay depends upon the price he can get for his manufactured goods. This was brought about by a joint conference which was arranged by the farmer group, of 20 growers and 10 each of foreign and American manufacturers, and all problems as to the cost of cotton, the demand and increase in the cost of cotton goods were very frankly discussed, as well as other practical questions for improving the quality of cotton and better methods of handling. I cannot but feel that these conferences had a very great effect on the very moderate recommendations which the growers' group submitted to the conference and most of which were adopted. I also feel that the explanations which were made to the farmers of the real use to them of the cotton exchanges cannot but be productive of good. I consider the action of the ginners in blocking the resolutions in favor of gin compressing was a mistake and will react in the long run against their own best interest. I feel the question of reduction of country damage which was discussed at the session over which I had the pleasure of presiding was materially aided, as all concerned in the handling of cotton seemed to be in agreement that they would do all they could to eliminate serious loss.

"The movement for building warehouses throughout the South was very generally approved of; in fact, it was included in the recommendations of the growers which were adopted by the conference. If my memory serves, this was the first time the growers themselves have led a movement in this direction. I have been criticised by some for offering a resolution for a suspension of the rules so that the propositions put forward by the growers, some of which had been turned down by some of the groups, by what I believe was a misconstruction of the rule. I am, however, of the opinion that if this action had not been taken by the convention it would have undone all the good feeling and get-together spirit which the joint conference between manufacturers and growers I mentioned above had developed."

J. R. MacColl, chairman Conference Executive Committee, Pawtucket, R. I.: "A large majority of the resolutions were voted for unanimously by the 11 classes of business interests, and thus became the official actions of the conference. Unanimity could not be expected on some questions, considering the varied interests represented. The present American bale found no friends at the conference. It was universally condemned. The movement to improve it will receive fresh stimulus. This can be accomplished either by gin compressing or with the present system of compressing. Buying net weight was approved by growers and spinners, both American and foreign, and should be put in force. There is a better understanding of conditions in the South. The growers want still higher prices for cotton. Pre-war ideas of the value of cotton must be permanently abandoned. The conference was largely attended, and there was a splendid interchange of views on many questions relating to the world-wide cotton industry."

Beverly Harris, vice-president National City Bank, New York City: "The cotton conference was conspicuous for the large attendance of many important people from all over the world. I believe it lays the predicate for much more cordial and closer relationship between all countries and all interests concerned. The discussions, I believe, have clarified the misunderstandings and differences, and will undoubtedly result in better co-operation and removal of much prejudice and misinformation and give a better conception of the community of interests existing between all those engaged in cotton production and cotton trade.

"I think all of our foreign visitors were very much pleased and considerably enlightened by their experiences and the hospitality shown them on this trip, and this will be reflected in permanent friendship and broader interchange of all kinds of business between our country and theirs.

"Personally, I believe the conference realized all that could be expected of it. It was most enjoyable from every point of view.

The personnel on the train was representative and congenial, and in common with all the other delegates I feel a deep sense of appreciation for the courtesy and hospitality shown us all along the line."

Herbert M. Gibson, delegate of the Port of Manchester and chief superintendent Manchester Ship Canal Co., England: "I think the conference cannot but be of the greatest benefit to the whole industry. If the immediate results are not apparent, the fact of the producers and the foreign spinners having been brought together will undoubtedly be of ultimate benefit to both sides. The importance attached by all parties to the better baling of cotton will undoubtedly bear immediate fruit, and thus assist in the reduction in the cost of transportation, which is so important to European spinners."

Jesse Thorpe, delegate Federation of Master Cotton Spinners' Association, Oldham, England: "My own personal opinion is that the conference was not organized as it ought to have been, but I think this is due to lack of time to effect more efficient rules. I think the conference will do great good commercially and tend to cement people of the various countries together. I hope personally to welcome the American delegates in England in 1921. I am quite in sympathy, and have acted upon it for 16 years, on the better baling, as I buy every year about 10,000 bales of cotton. More of direct buying from the grower should be done. The real danger, however, of this is the lack of financial standing of the growers, and if weather is such that the crop does not turn out right, the grower cannot fill his obligations."

Samuel Bird, Jr., president Talbot Bird & Co., Ltd., Marine Insurance Underwriters, New York: "Nothing has ever before been attempted to further the combined interests of the cotton industry to compare with the splendid work accomplished at the World's Cotton Conference at New Orleans in October. Many nations were represented, and the binding together of men in a united gathering to formulate plans beneficial to all was the real purpose of the conference. The main feature was the spirit of fairness of all to understand the others' position, be it that of growers, ginners, spinners, bankers, warehouse men or transportation men, and that this was accomplished and will bear fruit in the future there is no doubt.

"If this work can be carried on by constant educational features during the interim of the next conference in 1921 in England, it will be an added assistance."

Henry G. Lord, president Textile World Record, New York: "From the broad point of view the conference was a success. The minor shortcomings will be forgotten, and much good seems likely to result. The delegates from Europe and the Northern States have had an unusual opportunity to see and learn on the spot during their journey and at the conference conditions under which the cotton crop is grown and marketed. They have heard the farmer's story and know his point of view. It has been most instructive. The grower has shown us a strong desire to meet the spinners half-way. On the first day he was suspicious and on the defense, but before the convention was over the attitude was changed. Of greatest importance is the machinery created for permanent organization, which will result in frequent conferences of international scope, and the force of public opinion aroused to the need of reforms and better conditions that should be attained will do much to bring them about speedily. It would seem as if greater good would result if the conferences should be held alternately in our Southern States and in Europe.

The reports of friction between foreign and American delegates were greatly exaggerated by the daily press, and an incident due to the ill-advised attitude of a very few delegates was magnified out of all proportion. According to my observation there was a general spirit of friendliness, harmony and desire for co-operation to bring about tangible results. This was shown by the very large proportion of resolutions which received the unanimous support of all groups. I believe the conference will result in much good to the South and to cotton interests throughout the world."

Alderman Wm. Frost, J. P. C. C., Macclesfield, England, honorary secretary Textile Institute: "Visiting the South one is impressed by the feeling of buoyancy and hopefulness which is apparent among all classes of the people. New thoughts, new aspirations, new ideals are leavening the minds and influencing the actions not only of the great industrial centers, but in an even more marked degree of those who obtain their living from the cultivation of the soil. The methods of the past are being rigidly scrutinized with a view to obtaining greater efficiency and a higher standard of production both in quality and quantity.

"In coming to a decision as to the advisability or otherwise of adopting a certain course of action it is necessary that all the facts which have any bearing upon it should be known. Many of these facts may have to be obtained by consulting other minds and other interests, otherwise the judgment may be one-sided and rest on a false foundation.

"The cotton conference which has just ended was convened for the specific purpose of soliciting all the facts relative to the growing, manufacture and handling of cotton, to find out where there were conflicting interests and devise means to form a working basis which should be fair to all concerned. In my opinion a very hopeful beginning has been made. It is unreasonable to expect that the defective methods of working which have been in operation for generations can be changed in a moment by the passing of a resolution. On the other hand, the frank and full discussion of the various problems has set in motion an educative force which will be far-reaching in its character and gradually bring about a remedy for many of the ills under which the industry now suffers. One of the most valuable results of the congress is found in the intermingling of the men who are the responsible leaders and exponents of this great industry. Every branch was represented. Men of all nations came together. They exchanged views and learned something of the other man's point of view. The more this close co-operation can be encouraged so much the more will it be possible to bring the efforts of all together for the common good."

WM. H. STONE.

CHAIRMAN THOMPSON'S VIEWS ON COTTON CONFERENCE.

Great Good Will Come to Whole Industry from Personal Touch.

New Orleans, La., October 18—[Special.]—W. B. Thompson, chairman World Cotton Conference, in discussing with the MANUFACTURERS RECORD representative at the Cotton Conference, said:

"Great good will come from the discussion here of all the reforms which have long been urged in some of the methods of growing, handling and distributing of cotton.

"This meeting brought vividly to the minds of the delegates the need for reforms, and they will carry home the impressions they have received. From the knowledge thus gained there will be evolved some definite steps on the part of the different interests which should result in needed changes. In this way the educational value of the conference should be considerable. Having been brought face to face, and established personal relationships, the fact that they know each other will go a long way toward removing suspicions and jealousies that have existed between some of the interests in the past. The conference has thus been of great value in paving the way for a better understanding between the various interests identified with the cotton industry."

A Resume of the World Cotton Conference

A NEW REALIZATION OF THE INTERDEPENDENCE OF ALL INTERESTS IN COTTON—ENGLISH SPINNERS FREELY ADMIT THE WORLD'S DEPENDENCE UPON THE SOUTH FOR COTTON, AND ARE BOUNDLESS IN THEIR PRAISE OF THE GOOD TO COME FROM THE CONFERENCE.

[Special Dispatch to Manufacturers Record.]

New Orleans, La., October 17—[Special.]—After a strenuous, hard-working four-day session, the World Cotton Conference of 1919 concluded its labors here last night. The weather has been oppressively and unusually warm, but the conference has been untiring, nevertheless, and a vast amount of work has been accomplished in committee meeting and in general conference. It is the opinion of those who were responsible for the conference that great good has been accomplished in bringing together from all parts of the world leading representatives of the cotton-producing, handling, manufacturing and selling interests. It is felt that machinery has been set in motion for the adjustment of the entire industry, with its world-wide ramifications and varied allied interests to the changed economic conditions which have been brought on by the war.

In seeking to bring about a readjustment made necessary by the vast changes that have occurred throughout the world it was the belief that at the same time many of the objectionable methods and features incident to cotton production, handling and merchandising might be eliminated or reformed. It is perhaps too early to attempt an exact appraisement of achievements along these lines. To what extent the various interests will be influenced by this conference time alone can tell, but there was an agreement reached in some particulars. There was much agitation and discussion in everything affecting the cotton trade, and there was an exchange of opinion and dissemination of information that can hardly fail to be of permanent value along educational lines. With a broad, general understanding of conditions that exist, it is believed that in time needed changes will be made. Provision was made for continuous effort along these lines. A permanent organization was effected, and this world organization of allied cotton interests will carry on the work inaugurated here.

Many of the group recommendations failed to receive the concurrence of the conference as a whole, but this does not mean that effort will cease in cases where unanimous approval was not obtained. Conspicuous in this regard was the case of the improved cotton bale.

By a vote of two to nine the recommendations of the committee on a better bale failed to receive the necessary unanimous approval. The compress men and the cotton merchants were the two dissenting groups. These obstructing interests also prevented the ratification of the resolutions of the committee on transportation and insurance in so far as they favored a change in rules affecting cotton baling, and they also vetoed other reports by withholding approval of the sections favoring gin compression and other changes in present methods. The vested interests in compresses, in jute bagging, and in cotton ties will undoubtedly oppose all changes in the present American bale, but there is such world-wide demand for a better American bale that the prospect of a long and bitter fight against all change does not dismay or silence the advocates of a decent bale. The fight will go on. The high density gin compress men announce that they organized today.

The cotton growers were numerically strong in the conference, and at the last they received special consideration at the hands of the general conference. Fourteen recommendations were embodied in the report they made. Four of the recommendations were objected to by various groups. Under a suspension of the rules the ten recommendations to which no objection had been made were taken up by sections and given the sanction of the conference as a whole.

While the spirit of conciliation did not extend to the point of sacrifice of self-interest on the part of any group, there was in the main a disposition to get together on the broad question of betterment of trade. It was early realized that the Southern cotton grower could not be cajoled or threatened into planting a large acreage so as to give much needed supplies irrespective of the price to which cotton might decline. The efforts of the spinners, therefore, foreign and the United States, took the direction of suggestions as to improved methods of culture and the saving in waste. A better grade and more to the acre, a better bale and more care of the bale from the farm to the factory, were reforms strongly and persistently urged, and to this end a number of recommendations received unanimous approval.

Proper and adequate warehousing was strongly endorsed by the growers themselves, also the elimination of country damage and a marketing system which will properly reward quality and grade, better method also of insect and disease control were urged, and as a matter of fundamental importance to the farmer, it was declared by the American spinners themselves that food and feed supplies should be grown on the farms of the South.

It was frankly conceded by statisticians from abroad that for many years to come the world must look to the United States for its chief cotton supplies. There is an extension of cotton growing in Africa. The British are undertaking to restore cotton growing in the valley of the Euphrates, and there is a development of cotton growing in Brazil, but no great hopes are entertained of such developments in any quarter of the globe for twenty years at least as will lift the world's dependence on the South as the chief source of its cotton supply. The cotton of the South is one of the most precious things in the world today, and that was the reason why the greatest men in the cotton world came here from the four corners of the earth to counsel and plead that this precious possession be treated as a pearl of great price.

Even with the greater growth of cotton elsewhere, the ever-increasing world demands are regarded as certain to make necessary the continued expansion of cotton production here, and the central thought in the effort of today is to so improve methods in culture, handling and delivery that the South may find it attractive to grow cotton in accordance with consumptive demands.

More than ever before consideration was given to the value of research work, reports and statistics, international and domestic. That there will be increasing attention given to this work was evident from the interest shown, although this is a comparatively new department and not thoroughly understood and appreciated as yet. In connection with this work, it was sought by the committee in charge to establish a system by which world-embracing facts as to consumption would be as available as production facts now are. This recommendation failed of unanimous approval, however, foreign members objecting to the public dissemination of all cotton-spinning facts.

A conflict of views between American and English spinners which precipitated a temporary friction was developed over the

report of the committee on buying and selling equitable tare, net weight. The English chairman of the committee contended that the report as read in general conference was not the report the English members had approved. The general committee report was accepted, nevertheless, on the statement by chairman MacColl that changes made necessary by the difference in English and American systems were the only ones made. When later on the rules were suspended to permit a vote on the separate paragraphs of the growers' report and a motion had been adopted that the vote on the clauses should be taken without debate, a number of the English delegates bolted from the hall, and reporters were told by Mr. Nasmith that a statement would be given out later on. On the strength of this announcement an associated press "flash" was sent out covering the bolt. Instead of a statement, however, repudiation of intention to bolt was given out, and officially no record of inharmony exists.

The committee on financial foreign credits and exports made a unanimous recommendation for such legislation as will enable the United States to finance foreign textile manufacturers. By permitting the War Finance Corporation to purchase debentures of foreign governments and to extend aid to the existing banking and credit machinery of the United States, it was stated that at least 1,000,000 bales of cotton and other essential products should be made immediately available for those European industries now unable to operate. Officers of the World Cotton Conference, which will meet in England in 1921, were announced as follows: President, Sir Herbert Dixon; vice-presidents, as announced to date, America, Fuller E. Calloway and Russell B. Lowe; England, Edward B. Orme and John Smethurst; France, George Badern; Belgium, Count Jan De Hemptinne; Switzerland, Hermann Buhler; Italy, Commander Giorgio Mylius; treasurers, Sir James Hope Simpson and W. Irving Bullard; general secretary, Rufus N. Wilson; assistant secretary, Frank Nasmith.

The business of the meeting having been disposed of, Sir Frank Warner proposed a vote of thanks to Col. W. B. Thompson for the energy, ability, good nature and tact with which he had presided over the meetings. A standing vote of aye was enthusiastically given.

On motion of James D. Hammett, president of the American Cotton Manufacturers' Association, a vote of thanks was extended to James R. MacColl as chairman and Rufus R. Wilson as secretary "for the efficient manner in which they have organized and conducted the conference." The thanks and appreciation of the visitors for the entertainment provided by New Orleans and for the opportunity of attending the conference were expressed by numerous delegates. Greetings from their governments were extended by Sir A. Sherry Benn, England; Commander Giorgio Mylius, Italy; Capt. Charles Clerc, France; H. P. Tanieri, Portugal; Ole Morch, Norway; R. Valentinus, Denmark; Alphonso Par, Spain, and C. J. Bergh, Sweden. A belated telegram from Henderson, Tex., was received with merriment, the appeal having been made that the convention should do something to increase the price of cotton in view of the poor outlook in Texas. A Louisiana delegate offered a resolution urging the immediate adoption of the League of Nations covenant, without the crossing of a "t" or the dotting of an "i." He was promptly ruled out of order, and at 4.55 the convention adjourned. Group banquets so arranged to take care of all the visitors and the delegates were held at the hotels last night, and at midnight the visitors left for the North. A visit to a great cotton plantation in Mississippi was scheduled for Friday, and Saturday is to be given to entertainment and sightseeing at Memphis, where the official program ends.

ALBERT PHENIS.

Cotton Growers Will Benefit from Conference

[Special Correspondence Manufacturers Record.]

New Orleans, La., October 17.

J. Skottowe Wannamaker, president American Cotton Association, St. Matthews, S. C., in reviewing the work of the conference, said to a representative of the MANUFACTURERS RECORD:

"As a result of the World Cotton Conference, the producer will be greatly benefited. For the first time in 60 or more years the producer was not only invited to attend a conference of that character, but in addition to that a special committee of 20 growers was appointed and held two conferences with a similar number of representatives of domestic and foreign spinners. The conference from the day it opened was practically a mental battle between the representatives of the various interests.

"It was thought by some that the producers had blundered in laying their cards on the table face up, showing rural conditions and the necessity for enormous expenditures in order to rehabilitate the South, so as to draw the white man back to the farm and to hold the negro there. The absolute impossibility of increasing production under these conditions and the positive assurance that the farmer would not abandon his safe and sound policy of raising the necessary food and feed crops and the planting of cotton as a surplus crop were emphasized. The cost of production of cotton was clearly shown by the producers, additional information being freely furnished by them from time to time, it being pointed out that there was a possibility of an enormousy increased production of cotton after the South had resumed its normal condition, but no possibility of such being the case until then. Any movement tending to encourage an increased production of cotton at the expense of safe and sound methods of agriculture met with a stone wall of opposition from the producers.

"Efforts to ascertain the cost of production of the manufactured product both in America and abroad were defeated, the manufacturing and allied interests holding it would be unfair to divulge it.

"Gin compression, which has been a battleground for the last 30 or 40 years, was probably the next most important subject handled by the conference, the action taken thereon being opposed by only two groups, namely the compress people and the brokers.

"The conference, through its various groups, transacted an enormous volume of business, putting into operation many greatly needed reforms, and its work, taken as a whole, will result in much good to all branches of the cotton industry.

"The by-laws and formation of the permanent World's Cotton Conference was only completed after certain changes in the original draft, which were demanded by the producers, were made, the result of which places them upon an equal footing in every respect with all other lines of the industry. The absolute necessity of the producer receiving a fair and just price for his product was shown and approved by the unanimous vote of the conference as being the only possible means or securing a supply sufficient to meet the present demand, and in addition to this there was practically a unanimity of opinion as to the necessity of planting food and feed crops.

"The cotton producers, who largely predominated the conference, unanimously decided to push the construction of the warehouses in every county or parish in the cotton belt sufficient to warehouse the cotton produced therein owned and controlled locally and operated under either State or Federal warehouse act; to arrange for the financing of their cotton from the warehouse into the hands of the manufacturer, thus making a complete chain which will result in direct sales.

"The cotton producers also unanimously concluded to push the installation of gin compression.

"The organization of the American Cotton Association and the great work it has already accomplished was freely acknowledged by representatives from every division of the cotton industry at the conference."

Aftermath of World Cotton Conference

By HARVIE JORDAN, Monticello, Ga.

The World Cotton Conference, held at New Orleans October 13-16, 1919, was in many respects a notable one.

The outstanding feature predominating above all others was the clearly expressed spirit of perfect harmony and accord between the cotton growers and the American and foreign spinners.

Prior to the conference there existed in the minds of many leading cotton growers throughout the South a timidity in venturing to take part in such a meeting. A fear that the spinners had evolved some scheme or ulterior motive in calling the conference which in some way might tend to jeopardize the price of cotton or the present efforts of the growers to organize for the better protection of their interests.

For these reasons the growers hesitated to attend the conference or lend to it their support until rules had been formulated making it compulsory for all resolutions introduced to receive the unanimous vote of each group of cotton interests attending the conference and taking official part in its proceedings, before such resolution could be recorded and binding as the full official action of the conference.

For instance, if the growers' group refused to endorse a resolution, then and in that event the growers could not be bound by the resolution, no matter if all the other 10 groups unanimously supported it.

The deliberations of the first day of the conference, however, clearly indicated that there would be no dissensions between the growers and the spinners, but that harmonious and co-operative effort would be the keynote on all questions of sound business policies affecting the joint interests of both.

The spinners' groups, both foreign and domestic, endorsed every resolution drawn and passed by the growers' group, while the latter endorsed every resolution coming from the spinners' groups.

Not only is this true, but after full and free discussion had taken place between a joint growers and spinners' committee, a permanent World Cotton Conference organization was perfected, in which the growers and spinners will be the predominating interests.

The most important features of the conference concerned the questions of economic reform in baling, warehousing, financing cotton in storage, slow marketing, better care of the staple on the farm and at market points and selling cotton by net weight.

High density gin compression, light tare and selling by net weight were unanimously endorsed by nine groups, and were only opposed by the two groups of the large compress interests and the cotton merchants.

The American bale of cotton and methods of handling the same came in for strong condemnation by representatives of the spinners, especially the English spinners, and it was clearly emphasized that the right kind of economic reform could only be developed through the medium of high density gin compression. The present methods employed of securing high density through recompression was condemned as going from bad to worse.

The sentiment in favor of preparing the bale fully and completely at the ginnery for economic handling and transportation, and for developing a closer trade relation between growers and spinners seemed to be so unanimous that it is quite certain very drastic changes are destined to take place in the near future for displacing the old-fashioned, wasteful practices in handling the crop from the growers to the spinners.

In fact, the spinners now realize that the cotton growers can no longer be depended upon to supply the world with cheap cotton. The growers are determined to grow cotton in the future only at prices showing a fair profit above the cost of production; hence it has become more imperative than ever that all unnecessary expense and waste in baling and handling be removed from the crop as fast as possible.

Short crops, heavy demand and high prices of production will force economy and efficiency in the future baling and handling of the cotton crops, which under conditions of a large surplus of raw cotton each year did not make these economies so imperative.

Verily, the boll-weevil has been, and will continue to be, a blessing to the South, because that insect has not only forced safe and sane farming, but it is forcing the adoption of economic and efficient methods in handling the crop from the farms to the spinners.

Two strong points which the MANUFACTURERS RECORD has persistently stressed for years now appear to be coming into full realization: 1st. That cotton growers should diversify their farming operations and sell their cotton only at a profit. 2d. That antiquated, wasteful practices employed in the baling and handling of the cotton crop should be discarded and correct methods of economic reform instituted.

In the efforts of the cotton growers to bring about these highly important changes they have been assured of the hearty support and co-operation of the domestic and foreign spinners as emphasized by their official action at the recent World Cotton Conference.

Routine Proceedings Day by Day of Cotton Conference

New Orleans, La., October 17—[Special.]—The opening session of the World Cotton Conference began at 11.30 Monday morning in the Mosque of Jerusalem Temple, the local shrine. James R. MacColl of Rhode Island was temporary chairman. On the floor of the hall and in the balconies were something less than a thousand delegates. They were in placarded sections—foreign spinners in one, American spinners, compress men, ginners, etc., in others—in accordance with the group system into which the conference had been subdivided. Bishop Laval offered an invocation, and Mr. MacColl then outlined some of the things the conference hoped to accomplish, the address epitomizing the topics to be discussed in the program of conference speeches.

Addresses of welcome were made by Mayor Behrman on behalf of the city, Walter Parker for the Association of Commerce, and W. B. Thompson for the Cotton Exchange. Responses were made by Sir A. Herbert Dixon on behalf of Great Britain; Etienne Dennis, France; Giorgio Mylius, Italy, and Fritz Jenny-Durst, Switzerland. Appreciation of the opportunity for a general exchange of opinion was expressed by all the speakers, and assurances were given of a desire for such action as may result in mutual advantage to the cotton industry in all its branches and allied lines.

The committee on permanent organization submitted the following report, which, on motion of J. S. Wannamaker of St. Matthews, S. C., was unanimously adopted:

"Your committee respectfully recommends the election of the following as permanent officers of the Conference:

"President, William B. Thompson, New Orleans.

"Vice-Presidents, Frank M. Crump, Memphis; Giorgio Mylius, Italy; Sir Frank Warner, England; Fernand Hanus, Belgium; Charles Clerc, France.

"Secretary, Arno S. Pearse, England.

"Executive Secretary, Emile V. Stier, New Orleans.

"Recording Secretary, Winston D. Adams, Charlotte.

"Assistant Secretaries, Eugene P. Gum, W. S. Turner, R. C. Dickerman, H. Arthur Morgan.

"I. Delegates to the Conference shall vote by business interests under the following classes:

"(1) Growers.
"(2) Ginners.
"(3) Seed crushers and manufacturers of seed products.
"(4) Compress and warehouse men.
"(5) Cotton merchants.
"(6) Transportation and insurance.
"(7) Banking.
"(8) Governments and economics.
"(9) Spinners and manufacturers—American.
"(10) Spinners and manufacturers—foreign.
"(11) Textile merchants, converters and finishers.

"2. In votes on resolutions one vote shall be recorded for each class of delegates, and only votes that receive the support of the eleven classes shall be considered as the official action of the Conference. A majority vote in each class shall control its vote, but in recording the vote of each class its chairman shall state the percentage of ayes and nays. All votes shall be published.

"3. Program addresses shall be limited to 15 minutes.

"4. Ten minutes shall be allotted to each speaker in general discussions unless extended by majority vote of the meeting. No

one shall speak twice on any subject without unanimous consent.

"5. All speeches shall be confined to the subject under discussion.

"6. Resolutions from group meetings and all other resolutions shall be submitted to the general committee.

"7. In all other matters Roberts' Rules of Order shall govern the conduct of the Conference.

"All of which is respectfully submitted.

"RUFUS R. WILSON, Secretary."

On taking the chair as permanent presiding officer Mr. Thompson expressed the hope that out of the wisdom of counsel much benefit would come to the entire cotton industry, although he did not expect that a cure could be offered for all the ills from which the industry suffers. With humanity and patriotism as the keynote of the conference much good should come from this remarkable gathering.

Announcements for group committee meetings were made, and it developed that the growers had made a successful fight for increased representation on various committees. It was announced that chairmen were empowered to add to the membership committees. It was learned that a radical change had been made by Harvie Jordan in the membership of his committee on ginning, uniform baling and compressing. As constituted at first the number of compress men on the committee was declared to be objectionable, and Mr. Jordan claimed and received authority to change the personnel in accordance with his desires in the matter.

At the afternoon session papers were read by Prof. John A. Todd, an English economist of note, who spoke on "The World's Future Requirements of Cotton"; Dwight B. Heard, on "New Sources of Cotton Production," in which facts about Arizona and California production were given; Theodore H. Price, "Stabilizing the Price of Cotton," in which the limitations of any such attempt were pointed out, and J. Skottowe Wannamaker, "The Necessity of Profitable Prices to the Producer," in which an eloquent picture was portrayed of the misery which low-priced cotton brings to the women and children of the poor white farmer of the South.

Under the rule limiting speeches to 15 minutes, Mr. Wannamaker disregarded his manuscript and spoke extemporaneously. His appeal in behalf of the growers aroused the greatest enthusiasm among the cotton producers in the hall, and James A. Simpson of Texas moved that the full speech be printed in the newspapers as the official expression of the cotton growers of the South. The matter was disposed of under the rules, which require the reference of all matters to committees, but the incident seemed to demonstrate the jealous care with which the cotton producers are watching their interests in the Conference.

Evening sessions being scheduled for Monday and Tuesday, the third session of the day began at 8 P. M. Addresses were delivered by E. C. Ewing of the Department of Agriculture on "Securing Better Cotton by Seed Selection"; by John M. Parker of New Orleans on "The Growing of Cotton"; by Dr. Bradford A. Knapp on "Producing Better Cotton by Better Farming"; by Jesse Thorpe of Manchester on "The Need for Uniform Baling"; by W. D. Nesbitt of Birmingham on "The Compressing of Cotton."

At this meeting it was objected by a delegate that the speeches were not being restricted to 15 minutes' time, and that one-hour speeches, as one of them was, took up the time which had been allotted for discussion. It was declared that a full and free intercourse of opinion on the part of those who had assembled from such widely separated sections would be likely to prove of as much benefit, if not more, as the reading of papers, and a strict adherence to the limit rule was urged. Cries of "Hear, hear!" came from many of the British delegates. Some discussion was then engaged in, although it had grown late, and the announcement was made by the chair that hereafter the 15-minute rule will be strictly enforced.

The fourth session on Tuesday morning was devoted to the general subjects of storage, transportation and insurance, divided into the sub-topics of country damage, warehousing, transportation and insurance. This session was not so well attended as those on the previous day, as only between 400 and 500 delegates were present.

Albert Greene Duncan, a well-known New England cotton manufacturer and a former president of the National Association of Cotton Manufacturers, presided, and in opening the session he declared that the rule limiting speeches to 15 minutes would be strictly adhered to so as to permit a general discussion of each paper.

That this decision was a wise one was demonstrated as the proceedings advanced, and the impromptu talks from growers, ginners, warehousemen, bankers, spinners and foreign visitors made this session by far more interesting and valuable than that of the day before, as it enabled the different groups to interchange views and thus more thoroughly understand the problems of each other.

"The Problem of Country Damage" was outlined by E. A. Calvin, a prominent cotton grower of Texas, who stated that country damage has run from thirty to seventy million dollars a year, and this year would be about $60,000,000, which, he claimed, was enough to build sufficient warehouses in all parts of the South to properly house the entire cotton crop. Mr. Calvin pointed out that damage to cotton was by no means all due to the farmer, but to others also who handled cotton in one form or another on its way to the spinner.

He classified this damage as follows: That caused by the farmer leaving his bales in the yard without protection; that damaged in warehouses or sheds that did not give right protection; cotton left at the gin; improper handling by the railroads, so that practically all hands through which it passed contributed to the damage.

He said he had given a great deal of thought and study to these matters, and predicted that an adequate campaign of education among all cotton handling interests would be sure to bring the much-desired results.

Mr. Calvin has attended all four of the international cotton conferences that have been held in this country and in Europe, and claimed that while the direct benefits could not be immediately felt after each conference, he was confident a great deal of good had resulted from them for general betterment and broader understanding of the cotton problems, and that this conference would go further than any previous one in helping to remedy some of the most perplexing question of the industry.

The discussion following Mr. Calvin's paper brought out the statement that cotton that had been kept in a warehouse and cotton that had been left in the open, if sold in 30 or 60 days, brought the same price if the open-stored cotton had not been damaged, which did not offer much inducement for farmers to keep their cotton under cover. Consequently, a suggestion was made that to induce the storing of cotton a higher price should be paid for properly protected cotton.

Another cotton-growing delegate claimed the railroads contributed to what is called country damage when they did not have cars available for shipping the cotton promptly and did not provide sheds for keeping it at the shipping station until cars were available.

As an additional means of stimulating proper care of cotton it was suggested that the banks should not lend as much money on openly-stored or damaged bales as they would on protected cotton.

Governor Bickett of North Carolina struck a very responsive chord when he said cotton growers and handlers could not expect salvation without repentance. Everybody, he claimed, who had anything to do with cotton on its way to the spinner had a part in the damage done, and it will be necessary for each one to realize he was committing an economic sin and must repent and mend his ways before a change could come. Public sentiment, said Governor Bickett, must be so created that the people in any community will frown down on any man or warehouse organization that did not protect cotton.

Mr. W. B. Thompson, the presiding officer of the Conference and one of the most prominent cotton men in the South, spoke on "The Warehousing of Cotton," and brought out some very important points on this subject. Mr. Thompson was until recently head of the Louisiana State Board that had in charge the construction and operation of the now world-famous cotton warehouses at the New Orleans terminal, and therefore has a broad knowledge of his subject. He claimed that the whole crux of the cotton situation is proper warehousing, and that we cannot arbitrarily or by force of fiat fix any price on cotton, but that if the warehousing situation was taken care of and ample facilities provided in small towns, in larger concentrating centers and at all the principal shipping ports, all these would bring the needed protection for cotton, and with it necessary insurance and financing so that there would be no question that we would be able to stabilize the price of cotton in so far as it is humanly possible to do so.

The deep interest which some cotton growers are showing in

raising the standard of their cotton was illustrated by one Texas planter, who told of an exceptionally high grade of staple he was producing, and of which he was especially proud. He said he often felt he would like to have direct connection with some mill so he could sell them his cotton direct and then know what they thought of it and what kind of cotton goods it produced. This was a very interesting idea from a sentimental standpoint, for it showed how the grower's heart was in his creation and he wanted to follow it through, and it suggests that possibly some day such a condition may come about when those who have become successful in growing especially good cotton can have the satisfaction of seeing the finished product made from his raw material.

W. S. Turner, traffic manager of the Arkansas Cotton Association, in speaking on "Transportation of Cotton," discussed the many advantages of co-operation and how everything being striven for can be achieved by working together. He spoke against each of the 48 States having regulatory powers on transportation, and how this brought unending confusion in shipping matters, and suggested central Federal control through enlarged powers to the Interstate Commerce Commission as the only remedy.

Milton Dargan, a prominent insurance man of Atlanta, Ga., speaking on "The Insurance of Cotton," told of the different classifications of cotton insurance, and pointed out that the insurance underwriters and companies were prepared to write upon all classes of cotton insurance, and that there was no demand for any variety of insurance that could not be met, and the underwriters stood ready to provide any further type of insurance that may arise. He further outlined points on the cost of cotton insurance and means of reducing its cost, and showed how this reduction can be achieved when modern facilities are provided for handling and housing cotton. Mr. Dargan indicated that by adopting these measures of protection for cotton approximately $3,000,000 annually could be saved in premiums, or sufficient, if capitalized, to build all the modern warehouses required and equip them with facilities needed for cotton handling. The active co-operation and support of the insurance companies was promised to aid the cotton interests in obtaining these desirable ends.

"Warehouse Receipts and Cotton Loans" was the subject of a very able address by J. Howard Ardrey, vice-president of the National Bank of Commerce of New York and a former Texas banker. He discussed the value of the warehouse receipts for cotton loans, with especial relation to conditions in the South, and the requirements that will have to be met for banks to handle warehouse receipts. These varying requirements were necessary at present because of the difference in the things that stand behind such receipts. They range all the way from a warehouse receipt from the New Orleans State warehouses, which are guaranteed by the sovereign State of Louisiana, down to a cotton warehouse in Texas, where the law says a warehouse may be a plot of ground surrounded by a board fence and having a gateway that can be locked at night. Mr. Ardrey clearly outlined other phases of bank-loan requirements on cotton, all looking to possibilities of broader operation through the improvement of handling conditions from growers, buyers, warehousement and others that they have been guilty of some phase of damage to cotton, and this is a healthy sign, for it seems to be the sign of repentance which, as Governor Bickett says, is the thing that must precede salvation. Consequently, it looks now as if among the big things coming out of the Conference will be better baling and better warehousing. By better warehousing alone, protecting the cotton from the time it is picked to the time it reaches the spinner, it was shown by Milton Dargan, the insurance expert, that $3,000,000 in premiums could be saved annually, or, if capitalized, sufficient to build all warehouses needed, and by E. A. Calvin that damage to cotton by those who grow and handle amounts to $60,000,000, another sum sufficient to build all the warehouses required. So here are available by proper cotton protection savings from two sources sufficient to build twice the number of warehouses that would be required to house the cotton throughout the cotton-growing States. The lesson is being driven home forcibly so that it looks as if among the definite results of the Conference will be that of properly protecting the cotton from the planter to the spinner.

At the fifth session, held Tuesday evening, Thomas Heflin, Congressman from Alabama, spoke in the place of Senator E. D. Smith of South Carolina, who was unable to attend on account of illness in his family. Congressman Heflin traced the development of cotton production in the South from 1784, when the exportation of cotton from the United States amounted to only eight bales. The climate of the South is of so peculiar a nature that no other country can compete with this section in the production of white staple cotton. But the cotton producer will turn to cattle and to other farm products unless it pays him to raise cotton. By concentrated action the cotton producer can bring permanently better conditions. All the world must come to the South for its cotton supply, and there must be agreement between cotton producers and spinners, so that through an understanding harmonious and mutually helpful conditions may be established.

"Uniform Classification of Cotton" was the subject of a paper read by D. S. Murph of the Department of Agriculture. The history of attempts to standardize the classification of cotton in the United States was given, and the advantages of an international standard of classification were outlined. The use of uniform standards in international trade should greatly reduce the occasion for arbitration proceedings, now of such frequent occurrences. With a universal standard of classification the cotton producer would feel greater certainty that he was securing the price to which he was entitled, and this would stimulate him to greater activity in cotton production.

The present United States official cotton standard was approved by the Liverpool Cotton Association in 1915, but official action was then officially postponed on account of war conditions. The American standard has been favorably received by other foreign countries, so that final official adoption throughout the cotton world may not unreasonably be expected in the course of time.

Commenting on the address of Mr. Murph, Chairman Thompson declared that hardly any more important question could be raised than that of uniformity throughout the world in the classification of cotton.

W. H. Scherffius of Pretoria, South Africa, Chief of Tobacco and Cotton Inspection, South African Government, said that while some of the questions raised do not affect South Africa, as there are no boll-weevils or pink boll-worms there and the farmers do not leave their bales to the mercy of the elements, they are very much interested in the matter of grading. He was working with Mr. Murph to secure a set of standards, and when secured the South African cotton farmers expected to get the benefit of prices to which they were entitled. He declared that while the cotton industry of South Africa is now small, it is expected to some day be second only to that of the United States, for there are hundreds of thousands of acres there adapted to cotton growing.

A paper by Randall N. Durfee of Fall River on "Buying Cotton for Future Delivery" brought on a lively debate, in which the farmers' prejudice against cotton speculation was demonstrated. While declaring that without the cotton exchange the cotton industry would be like a ship without a rudder, Mr. Durfee attempted to draw a distinction between those who operate on the exchanges for hedging purposes and those who merely speculate.

Congressman Heflin wanted to know what kind of speculation Mr. Durfee would have eliminated, and to whom he would sell in the case of a sale of futures for hedging purposes.

Mr. Durfee replied that he was not familiar with the rules of exchanges and the perplexities of their operations, and Mr. Heflin declared that if spinners were to be permitted to buy, producers should be permitted to sell.

A delegate from Texas wanted to know if it is essential to sell 200,000,000 bales in the market in order to hedge a 15,000,000-bale crop.

Chairman Thompson replied that a 15,000,000-bale crop is not sold in one transaction, but that a great many transactions are represented in the aggregate number of bales reported as sold. In the case of a hedge it is the speculator who takes the other end of the transaction.

Mr. MacColl, Rhode Island, asked why it is that the wool trade of the world is carried out without future trading. He believed wise men would get together and eliminate the objectionable features of the cotton exchange.

Mr. Gilmer of Texas objected to the violent fluctuations in cotton prices. He thought that business men should get together and fix a price that would stand for two weeks or so at a time.

A representative of the cotton growers of East Texas declared that all they wanted was a price that would give the grower a profit. When this was done even the South African cotton grower would be benefited. They may not have boll-weevil in South Africa yet, but they had better watch that they do not suffer from the "bale weevil." He was not interested in exchanges; all he wanted was a bale that would not shrink between the time it left

the producer and reached market, and a bale that was not subject to violent fluctuations.

Arthur R. Marsh, former president of the New York Cotton Exchange, was called on by Chairman Thompson to speak on the subject of exchanges. He said he was not prepared for a speech, but would answer two or three questions. First, as to why two or three hundred million bales must be bought by spinners in order to hedge a 15,000,000-bale crop. Every bale bought is sold by somebody. The truth is that those who are engaged in hedging operations are constantly changing their hedges, shifting from one position to another, according to varying conditions. Cotton is not purely an American affair. If it were, the price of cotton would go to nothing, because we consume only a part of the amount we raise. It is the purpose of the exchange to handle and distribute the crop to the best advantage. As to wool, conditions are different, and every attempt to devise an acceptable future contract has failed. The woolen merchant calculates on about 15 times as much margin as the cotton merchant, because when fluctuations come they are more violent. The effect of cotton contracts is to narrow the margin on which the cotton merchant works. To the cotton merchant the future transaction is simply an insurance by which he can do business on so narrow a margin as 1 per cent.

Interruption by a Texas delegate: "If you sell our cotton we want you to come to us and get our cotton. We balk when you sell each other cotton and deliver only money."

Mr. Marsh—"Every bale of cotton bought on the New York or New Orleans exchanges is delivered. There is no escape. When there are hundreds of millions of bales of cotton sold there are that many bales delivered in the numerous transactions the various sales represent."

After considerable further desultory talk by various delegates from Texas and elsewhere, Chairman Thompson asked that further discussion be postponed to another time, as the hour was growing late and the program of speechmaking was yet incomplete.

The last speaker of the session was John Bolinger, foreign trade expert Shawmut National Bank, Boston, who spoke on "Improved Methods of Financing Cotton." He outlined methods, followed each step in cotton financing from the grower through the buyer, broker, exporter and manufacturer, and explained the results that now can be achieved in taking advantages of improved possibilities of financing under the Federal Reserve act. He cited typical transactions to illustrate how these improved methods can be operated, both for domestic and foreign transactions. A wider use of trade acceptances in cotton transactions was also urged.

There was a great falling off in attendance when the Wednesday morning session began. The growers' contingent had dwindled to a dozen or less, and there was decimation in all ranks, not more than 100 of the seats throughout the hall being filled when the gavel fell and chairman Thompson introduced as the first speaker Mr. Sam L. Rogers, Government statistician, who spoke on "The Value of Statistics to Business."

The value and importance of Government statistics in war, in peace, in industry, and as they affect the cotton interests, were outlined in the address. The scope of the work done for agriculture, the benefit of the facts gathered and disseminated and the world-wide advantage that would accrue if all countries would join in a co-operative effort to secure and publish cotton statistics were emphasized by Mr. Rogers in the course of his illuminating address.

The work of the Bureau of Crop Estimates was described by Leon M. Estabrook of the Agricultural Department. He said there are 211,000 reporters throughout the country, working under trained field agents in every State and covering every township. The methods of securing facts on which to base estimates were described, the cautious steps taken to safeguard the reports when figures were ready to be assembled were dwelt upon, and the accuracy of the reports when submitted was vouched for.

Harvie Jordan, Monticello, Ga., declared he had always felt that it was as important to know how much cotton is being consumed as how much is being produced. For many years our Government has published information as to the acreage planted, and then from month to month the crop condition and forecasts as to the probable size of the crop. The ginning of cotton is reported month by month, but outside of reports of consumption by American mills there is no information as to the consumption by the mills throughout the world. He had taken the matter up when he was at The Hague Cotton Conference some years ago, but beyond discussions as to how the information could be secured and disseminated, nothing had been done. He believed it proper to take up the question now, as it would be of infinite advantage to the cotton producer to know all about the cotton situation throughout the world—the consumption, the cotton in port and the cotton in spinners' hands, in every part of the world.

Giorgio Mylius, Italy, expressed appreciation of the statistics issued by the United States Government, and as to Mr. Jordan's suggestion said he would be glad to have all American spinners join the International Spinners' Association and get the benefit of all the facts of which it is possessed.

Giudo Rossati of the International Institute, Rome, declared the United States Department of Agriculture is doing good work in gathering statistics. The International Institute is interested in collecting and distributing world cotton statistics, and is desirous of increasing and extending this work in every possible way. Any suggestions as to how the scope of these labors may be enlarged will be gladly received.

Harrison E. Howe of the National Research Council, Washington, read an abstract of the address of O. P. Austin, statistician of the National City Bank of New York, on "International System of Reports and Statistics," Mr. Austin being unable to attend. Mr. Austin urged the establishment of a system by which all Governments could co-operate in the gathering and distribution of information as to planting, cultivation, production, manufacture and distribution. The Austin paper in pamphlet form was distributed to the delegates, and was found to be a compendium of inceresting facts covering many phases of the cotton industry.

Dr. Thomas Walker Page, chairman of the Tariff Commission, spoke extemporaneously on "International Trade in Cotton Yarns." He said the Tariff Commission was appointed to make investigations to find out facts, so that Congress and the President might know what to do with reference to promoting our best interests. The commission did not propose to take a leap in the dark. It would consult with business men here and abroad to determine what would be fruitful and what not worth while. The commission had looked into the matter of cotton yarns, and its report on the subject will be ready soon. The substance of the report was given in Dr. Page's address. Although the United States is the greatest producer of yarns in the world, it is insignificant as a trader in yarns. Out of 750,000,000 pounds of cotton yarn which entered into the trade of the world, America had exported 19,000,000 pounds last year. These were nearly all coarse yarns and went to Canada and South America. Imports reached 10,500,000 pounds in 1917, fell off in 1918, and were under 3,000,000 pounds now.

The Tariff Commission had been especially interested in knowing what use was made of imported yarns. It was found that 21 industries use imported yarns. One-third of the imports are used in lace manufacturing, and a fourth for knitting. Before the war yarns were imported for hosiery; at present yarns are mainly imported because of some special quality we do not have here. A new use of yarns is in the manufacture of chamoisette for gloves, in which quite an industry has been built up. This was formerly largely in German hands. Yarns are imported for insulating and for airplane purposes. Nearly all the imported yarns are from Great Britain, which sends us most of all we buy, and in some lines all. Yarns formerly bought from Germany had been spun in England and finished in Germany. Turkey red yarns, which formerly came from Germany, come from Glasgow now. They are not so satisfactory. It remains to be seen whether we can get satisfactory colors in all lines without going to Germany.

The scope and purposes of "Research in the Textile Industry" were elucidated in an address by E. D. Whalen. The growth of the research idea was outlined, and the possible benefits were pointed out as applicable to the cotton industry—to the manufacturer and to the grower of cotton.

"Texile Machinery Requirements of the Immediate Future" were discussed by E. Kent Swift of the Whitin Machine Works, Whitinsville. "Nearly two-thirds of the population of the world are not users of cotton goods," said he. "This gives an indication of the possibilities that exist. Taking the ratio of increase in cotton spindles during the past decade, it would be necessary for us to add 21,000,000 spindles within the next ten years. Based on pre-war conditions, there will unquestionably be a demand on machinery manufacturers that will tax the plants' capacity."

With all the losses and difficulties that have been encountered, the cotton industry is believed to face a period of great prosperity, Mr. Swift declared.

"The Permanent Organization of Participants" was discussed by W. Irving Bullard, banker and manufacturer of Boston. Mr. Bullard was a member of the American commission which went to Europe to invite foreign representatives, and he declared that all the members of the organization agreed that great benefits would come from a permanent organization of those who have gone to the expense of money, time and trouble to attend. He strongly urged the formation of such an organization, but on account of the heat declined to read an address he had prepared on the subject. Retiring after a two-minute talk, he was roundly applauded for his consideration and brevity.

Chairman Thompson announced that Sir A. Herbert Dixon, who was to have been first on the program of the morning, was not well, and while he had hoped to appear, it was evident that he was unable to do so. Adjournment was then taken to 2 P. M. Thursday, when the reports, resolutions and final business of the conference will come up for action.

Report of Committees and Resolutions Adopted by World Cotton Conference

Report of Committee on Growing Cotton, Seed Selection Methods and Methods of Cultivation.

The committee appointed to draft resolutions expressing the opinion of this committee beg leave to report the following:

Growing of Cotton.

After a careful survey of the factors influencing the growing of cotton, we are of the opinion that the present tendencies throughout the South are away from the production of larger crops of cotton, and that unless these tendencies are arrested and contrary influences set to work, the volume of American cotton may steadily decline.

Character of Cotton.

The United States does not enjoy a monopoly of cotton production, but with the exception of a small quantity of Egyptian long staple cotton, the United States has at the present time a practical monopoly of the world supply of good staple cotton of the quality most desired by spinners. There have been introduced in many comunities many varieties of cotton of short and inferior staple, and we regret to be compelled to report that, during the past 15 years, the production of these varieties has steadily increased.

The idea of cotton production is the growing of one variety of cotton of good merchantable character in each community. This condition would permit the constant improvement of the variety, and insure a product of uniform and standard quality, but this ideal is impossible of attainment until the system of local marketing has been so improved that the growers of good cotton will receive the proper reward for their enterprise and progressiveness. We therefore call upon the State and Federal agencies engaged in agricultural work to foster and encourage the establishment throughout the cotton belt of a marketing system which will insure the growers of cotton the full comparative value of each bale, grade and staple considered, when offered in the local markets.

Scarcity of Pure Seed.

There exists a distressing shortage of pure planting seed of the better varieties of cotton, and farmers are annually victimized by ignorant and unscrupulous persons, who sell gin run and oil mill seed as pure seed of the more popular varieties. It is impossible for farmers to protect themselves against such unfair dealing in the absence of a carefully regulated system of seed production and distribution. We regard it as a matter of the utmost importance that prompt action be taken in the several States to insure the production of ample supplies of pure cotton seed of approved varieties for planting purposes.

We believe it to be the duty of the State and Federal Government, acting through local experiment stations and agricultural colleges, to propogate approved varieties of cotton, and provide a system of supervision and inspection of seed growing, to the end that supplies of seed, certified as to quality and trueness to type, may be made available to farmers.

Insect Control.

The infestation of cotton fields with boll weevil, boll worms, leaf worms, red spiders and other insects, has progressed to such a degree that to undertake to grow cotton without some form of insect control has become extremely hazardous. In our judgment, successful growing of cotton in the future will depend very largely upon the controlling of insect depredations and plant diseases. We therefore recommend that special efforts be made by State and Federal agencies of agricultural betterment to disseminate among farmers more adequate knowledge of approved methods of insect and plant disease control. We especially urge demonstration upon an extensive scale of the newly developed method of boll weevil control, by dusting with calcium arsenate, and the continuation of research work for other and better means of control. We call upon cotton farmers everywhere to cooperate with public agencies in the enforcement of quarantine against the dissemination of insect pests and plant dseases, and to exercise the utmost diligence in the extermination of these enemies of cotton on their own farms through group co-operation. We commend most heartily the United States Department of Agriculture and the State Department of Agriculture of Texas upon their efforts to eradicate the pink boll worm from cotton, and congratulate the entire cotton world upon the apparently successful work that has been done.

The Labor Problem.

The high price of farm labor has become a serious menace especially to large scale production of cotton. As yet there has not been perfected mechanical substitutes for hand labor in hoeing and picking cotton. Many attempts have been made, and many machines of varying degrees of serviceability have been brought forth, but none of them is satisfactory, and for the immediate future at least we must continue to reckon with hand-labor in the production of cotton. If women and children should be eliminated from the cotton fields of the future, as should be done, the small grower, without hired help, could not plant, cultivate and pick more than five acres of cotton.

The large producer of cotton, who must rely upon employing large numbers of laborers at hoeing and picking seasons, shows a tendency to either turn to other crops, or to so diversify their crops, and so combine their farm enterprises as to furnish steady employment for a definite number of laborers throughout the year, rather than to depend upon large numbers of casual laborers at the two critical labor periods in the life of the cotton crop.

The wage scale in the cotton fields is far below the wage scale in other agricultural sections, and the standard of living of cotton producers, as well as the price of cotton in the open market, will never be adequate unless the price represents the cost of production, plus a reasonable profit to the producer.

Cultivation.

There is no one best system of cultivation of cotton for all regions of the cotton belt. Each district has its own cultural problems, and we therefore recommend that the various experiment stations in the South give more attention to seed selection and methods of cultivation to the end that the yield of cotton per acre be materially increased.

Report of Committee on Financing, Foreign Credits and Exports.

Resolved, That we recommend such enabling legislation be enacted by Congress as will permit the War Finance Corporation to purchase directly self-liquidating secured approved obligations of foreign manufacturers, corporations, firms or merchants, endorsed by foreign commercial banks, or bankers, and guaranteed by the governmental bank and approved by the recognized Governments of the respective countries, to be used by such manufacturers, corporations, firms or merchants for the purchase in the United States of essential materials necessary for the resumption of business operations and production in those countries, thus giving employment to their people and aiding in a return to political, social and economic stability; and for the production of such merchandise as may be exported, and to provide exchange for further purchases. Be it further

Resolved, That it is the sense of this conference that if the aid of the Government of the United States can be extended in

the manner above indicated, to provide for this emergency financing for which no other agency now exists than the War Finance Corporation, that the existing banking and credit machinery of the United States will be adequate to provide for the general financing incidental to normal international banking operations. Be it finally

Resolved, That it is our opinion that with the governmental co-operation as above outlined at least 1,000,000 bales of cotton, together with large quantities of other essential products, should be made immediately available for those European industries which are now unable to operate.

Adopted by American delegate members.

The foreign delegates who are members of this committee feel that it would be outside their province to vote upon the resolutions passed and submitted to them by their American colleagues, more particularly because those resolutions are in effect an appeal to the Congress of the United States. At the same time, the foreign delegates desire to place on record their warm appreciation of the high public spirit which has animated their American colleagues in drawing up the resolutions, and their sincere approval of the manifest desire shown by their American colleagues to afford substantial assistance to impoverished countries of Europe.

They are further of the opinion that the measures contemplated in the resolutions appear well calculated to accomplish this purpose.

Adopted by foreign delegate members.

The committee have considered the question of stabilization of exchange, and it is our opinion that if the terms of the resolutions are carried into effect, it will go far in that direction, and they have no other recommendations to make.

Adopted by all members of the committee.

Report of Committee on Warehousing and Country Damage.

Your committee therefore recommends the passage by the conference of the following resolutions:

Resolved, That the conference insists upon the importance of erecting warehouses at all gins or other points where baled cotton is held either for short or long periods. No bale of cotton should ever be left exposed to either wind, sun or rain.

Resolved further, That the conference recognizes the paramount necessity for warehousing, and pledges its support and influence to those individuals, associations or communities who undertake to establish at proper trade and transportation strategic points warehouses that will furnish:

1. Proper physical protection to the bales.
2. Low fire-insurance rates.
3. Receipts showing weights and grades of the bales covered by them.
4. Financial strength and methods and scope of operation that will make these receipts acceptable in all world markets, either to the purchasing buyer or to the lending banker.

Report of the Committee on Exchanges, Classification, Contracts, Speculation.

The Committee on Exchanges, Classification, Contracts, Speculation, unanimously recommend that the conference adopt the following resolutions:

Resolved, That this conference recommends that all possible effort be made to procure the adoption and use throughout the world of a uniform system of classification of American cotton, based upon uniform standards for grade.

Resolved, That it is the sense of this conference that the contract as now dealt in, under the provisions of the United States Cotton Futures Act, as amended March 4, 1919, is not sufficiently comprehensive to protect the farmer in the financing and sale of grades and character of cotton which he grows, and should be amended.

Resolved, That this conference recommends a uniform time for posting quotations in all American spot markets, namely, 2.30 P. M. Eastern time, 1.30 Central time.

Committee of Textile Merchants, Converters and Finishers.

The dyeing, bleaching and printing industries, also the converting trade, are sustaining serious losses on account of the improper covering of cotton-piece goods in the bale at the grey mill with the result that many goods are damaged to such an extent that it is impossible to produce merchantable merchandise. This matter is so important that it demands the serious consideration of the Conference, therefore, be it

Resolved, That it be the sense of this Conference, that all bales of cotton and silk-piece goods be completely covered and properly protected with burlap or other suitable wrapping, and strapped so that there shall be no danger of rust stain.

Committee of American Spinners and Manufacturers.

Resolved, That it is the conviction of American spinners that the producer of cotton and the consumer of cotton have a common interest in supplying the largely increasing requirements of the world; that what works harm to the one is sure to bring ill to the other; that the prosperity of the South depends upon the general adoption of the agricultural methods best described as "safe farming"; that the food and feed of the South should be produced on the farms of the South, and that the farmer in growing cotton should make it his first concern to improve quality and increase production per acre, believing that price will be determined by fundamental economics.

Resolved, That the spinners of America favor a policy which, with due regard for the increase in consumptive demand that keeps pace with growth in population, will from year to year assure adequate production of requisite quality.

Reported by the Committee on Transportation and Insurance.

Resolved, That it is the duty of the Federal Government to take such steps as will lead to the eradication of the terrible waste in the handling of cotton by the present methods, and that the permanent organization created at this conference be requested to take the matter up vigorously with the proper authorities.

Resolved, That this conference heartily commends the Railroad Administration for resuming the practice of issuing at interior points through bills of lading to foreign destinations. Such practice is intelligent, efficient, injures no one and promotes the marketing of cotton.

BE IT RESOLVED, That in the interest of transportation economy and increased transportation facilities, this Conference heartily approves the establishment of transportation upon the great inland waterways of the United States through the aid of the Federal Government, and respectfully urges earnest and increasing support by the Federal authorities of the development of inland waterway transportation for the purpose of aiding in handling the great cotton and other raw-material crops of America.

Report of the Committee on Research, Reports and Statistics.

This committee has been directed to consider and report upon a possible international system of reports and statistics covering all phases of the growing, marketing and manufacturing of cotton, as well as the need for and possibilities of research work in the textile industries.

The committee fully recognizes the many difficulties which confront those endeavoring to obtain complete, reliable and satisfactory statistics in different parts of the world and to assemble these international statistics, but in the opinion of the committee the ideal for which we must strive is for each country to collect, compile and publish, under Goernment authority, complete data on cotton for its own benefit, and to contribute to the support of an international organization which should receive, digest and publish cotton statistics of the whole world.

Until this ideal can be realized the committee recommends that the various countries continue to gather and promptly publish statistics on cotton production and exports and imports of manufactured cotton goods, making these statistics readily available for the compilation of world statistics. It is especially recommended that the International Federation, the International Agricultural Institute, the Bureau of Census and the United States Department of Agriculture be made depositories.

It is recommended that the chairman of the National Research Council and the presidents of the National Association of Cotton Manufacturers, the American Cotton Manufacturers Association and the American Society for Testing Materials join in appointing a committee to arrange details for the early establishment of a cotton research association in the United States, and that details, including outlines of work to be initially undertaken, and a budget be prepared for presentation to the various American organizations in the cotton trade, which should join in an undertaking of such fundamental importance and self-interest.

Constitution of the World Cotton Conference.

ARTICLE I.

Section 1. Name. The name of this organization shall be the World Cotton Conference.

Sec. 2. Object. The object shall be the promotion of the interests of all those engaged in the production, handling and manufacture of cotton and its products.

ARTICLE II.

Section 1. Class of Members. The members shall be classified, according to their interests, into the following groups:

(1) Growers of American cotton.
(2) Ginners.
(3) Seed crushers and manufacturers of seed products.
(4) Compress and warehousemen.
(5) Cotton merchants.
(6) Transportation and insurance.
(7) Banking.
(8) Spinners and manufacturers.
(9) Textile merchants, converters and finishers.

These groups may be reclassified by the Executive Committee and the number of groups increased or diminished.

Sec. 2. Members. Only organizations representing those engaged in any class of business included in any of the aforesaid groups may become a member of this Conference, by and with the approval of the Executive Committee. Such organization when it becomes a member shall be placed in the group or groups which include the interests which such members represent.

ARTICLE III.

Section 1. Meetings. The next conference shall be held in 1921, at a time to be fixed by the Eecutive Committee, and preferably shall be held in England. Meetings shall, if possible, not be held twice in succession in any country, the object being to meet in as many countries as is practicable. Special meetings may be held as called by the Executive Committee. The time of all meetings and the place of the special meetings shall be determined by the Executive Committee, and notice of such meetings given by the General Secretary to all members.

Sec. 2. All member organizations are entitled to send representatives to the meetings of this Conference. In addition, nonvoting delegates to such meetings may be appointed by Governments, commercial bodies and organizations interested in the purposes of this Conference, when requested to do so by the Executive Committee.

Sec. 3. Voting. Upon all questions, except resolutions involving the policy of this organization, each member represented shall have one vote, and a majority of the votes cast shall decide such question.

The voting on resolutions involving the policy of the Conference shall be by groups of members only. The chairman of each group shall cast the vote of such group, each group having one vote. No resolution shall be considered the official action of the Conference unless it receives the vote of each group of members.

A majority of those voting in each group shall determine the vote its chairman shall cast on any resolution. In casting the vote of any group on any resolution, the chairman of that group shall state the proportion of the members of such group voting for and against the resolution.

Sec. 4. Meetings of the members of any group of members, as classified in Article II, Section 1, shall be held at each meeting, and may be held at any other time and place on the call of the chairman of such group.

ARTICLE IV.

Section 1. Officers. At each meeting the Executive Committee of the Conference shall elect a president, one or more vice-presidents for each country having a member of this Conference, a general secretary, a treasurer, and such other officers as the committee may think wise. The president shall be a resident of the country selected for the place of holding the next meeting.

The term of office of all officers shall begin at the conclusion of the conference at which they are elected, and shall continue until the conclusion of the next conference and until their successors are elected.

Vacancies in office may be filled by the Executive Committee, and officers so elected shall hold office until their successors are elected by the succeeding conference.

The Executive Committee shall determine whether any officer shall receive a salary and fix the amount thereof.

At each conference each group of members shall elect a chairman, vice-chairman and a secretary for such group, who shall act for the same term as is provided for officers.

Sec. 2. The president shall be the executive officer of the organization, shall preside at all meetings, shall be ex-officio a member of all committees and shall perform the duties usually incident to such office, together with any other fixed by the Executive Committee. He shall make a report at each conference.

Sec. 3. Each vice-president shall at all times promote the interests of this Conference in the country which he represents, and perform such other duties as may be given by the Executive Committee.

Sec. 4. The general secretary shall keep the roll of the members; keep minutes of all meetings; file and preserve all records and papers of the conference, and perform such other duties as are imposed on him by this constitution or by the Executive Committee.

The treasurer shall collect and receive all funds of the Conference and pay them out on orders of the president or Executive Committee.

ARTICLE V.

Section 1. Committees. There shall be an Executive Committee named at each Conference, to be composed of the president, general secretary and the treasurer when chosen, and one member selected from and by each group of the Conference. The Executive Committee shall elect its own chairman, shall have general supervision over the work of the Conference between the meetings, and shall make all arrangements for all meetings of the Conference. It shall also collect information, make investigations and furnish the members facts and suggestions which the committee judges would be helpful.

The Executive Committee may appoint committees and secure assistance in the promotion of the interests of this association and its members as the committee may find necessary.

Sec. 2. Committees. At each conference the president shall appoint, in addition to other committees the following standing committees, the member of which shall be nominated by the groups:

(a) Committee on World Rquirements and Stabilization, Production and Prices.
(b) Committee on Growing Cotton, Seed Selection, Methods of Cultivation and Picking.
(c) Committee on Ginning, Uniform Baling and Compressing.
(d) Committee on Warehousing and Country Damage.
(e) Committee on Transportation and Insurance.
(f) Committee on Buying and Selling, Equitable Tare and Net Weight.
(g) Committee on Exchanges, Classification Contracts and Purchases.
(h) Committee on Financing, Foreign Credit and Exports.
(i) Committee on Research, Reports and Statistics—International and Domestic.
(j) Rules and Nominations.

Each committee shall hold hearings, make investigations and report to the Conference, or to the Executive Committee when the Conference is not in session, with its recommendations, and shall promote the interests in connection with which such committee is appointed.

ARTICLE VI.

The funds necessary to defray the expenses of the Conference and its committees shall be raised by the Executive Committee through membership fees, contributions or such other sources as the committee may decide.

This committee shall have the authority to fix the amount of membership fees which each member organization shall pay, and the amounts fixed for the various members may vary.

ARTICLE VII.

Miscellaneous.

Section 1. This constitution may be amended by unanimous vote of the groups participating in any regular meeting of the Confernce. Amendments must be submitted in writing, and voting thereon shall be by the chairmen of groups, as provided in Article III, Section 3, the affirmative votes of the chairmen of three-fourths of all groups who are members of the Conference being necessary to the adoption of an amendment. Sixty days' notice of any proposed amendment must be given.

Sec. 2. All committees may decide upon any action by correspondence, and any member of a committee may designate a proxy to represent him at any meeting of such committee.

Have Cotton Manufacturers Ever Sought to "Bear" Cotton Prices?

MR. DURFEE'S STATEMENT

Mr. Randall N. Durfee, chairman Cotton Buying Committee, National Association of Cotton Manufacturers, in his address in New Orleans, made the following statement:

"There has been more or less talk recently about concerted action on the part of manufacturers to depress the price of cotton. I am very glad to have the opportunity to state that in my own experience of nearly thirty years of active participation in the manufacturing end I never knew of a textile man even advocating any scheme having as its aim the lowering of cotton values. All manufacturers aim to buy not only cotton, but money and all their supplies as cheaply as possible. In recent years, as a member of one of the important committees concerned with the buying of cotton, I have had the pleasure of close association with manufacturers, and no mention was ever made which had the slightest reference to depressing the cotton market; our efforts in the past few years have been only to improve the conditions surrounding the crop. What has already been accomplished means infinitely more to the producer in money value than to the spinner."

Mr. W. C. Heath, president of the American Cotton Manufacturers' Association, at its annual meeting in 1904, said:

"When the price of the staple began to rise last fall, however much the cause might have been due to other things, everybody knew that all those causes were based upon the fact that according to all human wisdom the supply was going to fall short of the demand. But instead of accepting, at least tentatively, this fact and beginning to try correspondingly to bull the manufactured article, we all took the opposite course and became voluntarily raw-cotton bears, and consequently manufactured cotton bears. And since the market resisted the combined assaults of the manufacturers of the world and the strongest speculators of the world, climbing upward in spite of all to a height which seems dizzy to shorts, we have as manufacturers our losses from a yet irresponsive market for our pains. As manufacturers we should have accepted the situation of a rising market. Instead of that, we persistently, continuously and emphatically advertised to the world that it was our opinion that the increasing price was purely manipulation and far beyond intrinsic value. * * *

"Under such circumstances it seems to me that our customers would have been fools to take more of our goods than absolute necessity drove them to. This thing of bearing the market on the raw material, as you have done, is, therefore, a weapon of doubtful efficiency in the hands of the manufacturer. * * *

"No body of men have cried out as fiercely, and often as unreasonably, against the American cotton gamblers as have the spinners of Lancashire, and yet a short time ago the president of their association, looking back at the history of the cotton market last season, said in an address to the association: 'Last season cotton cornered itself.'

"When the price of cotton began to rise last fall, due partially to manipulation, many of us began to cast vile calumnies at the bull leaders, and charged them with being gamblers, and even blacklegs, but one is impelled to ask the question:

"Who were the greatest gamblers, they who bought what they wanted, or you, who sold for delivery that which you did not have?

"One prominent member of the New York Cotton Exchange was heard to say not long since: 'Cotton is standing alone without a friend, it would seem. Against it is the English Government, the combined mill interests of the world, the market manipulation of Liverpool and New York and bankers of Wall Street, and every possible influence that can be brought to bear, and still prices hold high.'

"Another said: 'I have been a member of the New York Cotton Exchange for a great many years, and I have never heard a word said against a man who tried to bear cotton, but the man who endeavored to bull cotton has always been a target.'

"Cotton has never been so low that persistent attempts have not been made to depress the price. An advance to six cents in 1897 was fought just as hard as the 16-cent level this year."

Nearly all the cotton manufacturers who made addresses at the International Cotton Spinners' Congress in Zurich in 1904 emphasized the need of more cotton, but at lower prices, and President Macara urged an organization of all spinners in order to keep down the price of cotton. In view of these well-known facts, we wonder where Mr. Durfee has been hiding himself away for so many years, that he knows so little about the things that have gone on in his own industry at home and abroad. Moreover, it should be borne in mind in this connection that last spring Mr. Durfee wrote a very vicious attack upon the cotton growers of the South and upon all others that were seeking to secure a higher price for cotton, and not content with sending that letter to one New England paper, he sent it to many New England and New York papers, hoping to discredit the efforts of the South to secure a fairer price for its cotton.

Opening Remarks of Temporary Chairman J. R. MacColl, of Rhode Island, at New Orleans' Cotton Conference, Monday, October 13

Will you permit me to state briefly some of the reasons why we have assembled in this conference, and some of the things that we hope to accomplish?

Millions of people depend for their living on the cotton industry, and the whole civilized human family are users of cotton. In war, as well as in peace, cotton is a vital factor. The eleven business interests participating in this conference, beginning with the growers and ending with the textile merchants, all have some responsibility in relation to the welfare of mankind, and none is justified in holding narrow and selfish views which omit to recognize the rights of the other classes of business interests or of the world-wide consumers.

Although the great war is partially over, the poet's dream of a time when "universal peace shall lie like a shaft of light across the land" is still far from realization. The war has upset and changed every form of human activity and endeavor. It seems, therefore, to be an appropriate time to hold a World Cotton Conference to the end that, by mutual intercourse and personal contact, the problems relating to cotton may be better understood, and progress made in accomplishing reforms that are urgently needed. It is a good time to brush aside old and inefficient methods. The economic world is being reconstructed. The cotton industry cannot stand still, but must join in the forward march. If we enter into this conference with open minds, free from any selfish motive, discussing matters in a frank and fair-minded spirit, we shall undoubtedly arrive at conclusions that are well worth while. On some points we must expect radically different opinions to be expressed, but, if our only aim is to promote the best interests of the cotton industry, our conference is sure to result beneficially.

One of the most important subjects to be considered is an adequate supply of cotton to meet the world's increasing needs. The spinners of the world want to know to what extent they can rely upon the Southern States to supply the cotton required. The growers will undoubtedly point out to the spinners that there is only one way to secure an adequate supply of cotton, and that is to pay a price that will yield as large a return as can be derived from other products of the soil, and that is in harmony with the profits being made in the later processes of manufacturing and merchandizing. If acreage is not to increase, but perchance to be diminished, and weather conditions continue similar to recent years, there is a real danger of a cotton famine which would stop millions of cotton spindles and deprive many wage-earners of their accustomed work, at the same time creating a serious shortage of cotton fabrics throughout the world. If this conference accomplishes nothing more than to give to growers and spinners a clearer vision of requirements, supply and price, it will serve a most useful purpose.

The spinners will urge the growers to give greater attention to the production of cotton of even-running staple and grade, and to careful handling in the gin. They will explain that cotton with these characteristics will always command a higher price, which will more than repay the grower for the care and expense involved.

Stabilization of the price of cotton is to be discussed. We all realize that this is a very difficult problem to solve, but one for which some solution is greatly needed. It is evident that in the growing of a material so sensitive to weather conditions, it is unwise to plant an acreage that may prove altogether inadequate in its final yield. The grower naturally objects to being penalized if, by favorable weather, a large crop is produced, and believes that some way should be devised to secure him a minimum price that would yield him a fair return. The International Federation has frequently discussed this question and various plans to accomplish the purpose have been suggested.

Any system of cotton exchange trading which accentuates price fluctuation and places the cotton industry at the mercy of gamblers should be eliminated. As a means of hedging purchases and sales, many of the spinners of the world believe the cotton exchange serves a valuable purpose and that it cannot be dispensed with. It is, however, worthy of note that the wool and silk trades of the world are carried on without future trading in contracts that are optional and that do not represent actual deliveries. It is to be hoped that the members of the cotton exchanges here present will co-operate with the growers and spinners of the world in suggesting plans to eliminate improper speculation and to adjust the methods of exchange trading to the needs of legitimate business. If the exchanges fail to do this, growers and spinners are likely to demand further regulative legislation. There is a field here for constructive statesmanship on the part of the leaders of the cotton exchanges.

Certification of cotton in Southern warehouses to be used for delivery on contracts has been much discussed, and has received the approval of committees of the New York Cotton Exchange. This plan should be endorsed by the conference and the necessary steps taken to make such action effective. This would provide an important means of reducing speculation by preventing corners made possible by an inadequate supply of cotton in New York.

Representatives of Government departments that deal with statistics are here, and also delegates from the International Federation, which has handled statistics abroad. In consultation they will doubtless make some valuable suggestions as to improvements that can be made in the statistics of the cotton industry. Great progress has been made in this matter in recent years, for which we are indebted both to the United States Government and to the International Federation.

A decent American bale is certainly one of the crying needs of the industry. No man has the hardihood to defend the present bale. In the production of a satisfactory package we are not entering upon pioneer work. Egypt and India produce creditable bales, and when the British Cotton Association started the growing of cotton in West Africa a few years ago, the bales turned out there were excellent. Our Southern States have shown wonderful industrial progress and development in the last twenty-five years. For the credit of the cotton industry, the Southern States and our country, it seems imperative that we should keep pace with other countries and carry out immediately this necessary reform.

One of the first steps to accomplish this is for spinners to agree to buy their cotton on a net weight basis. This will not be any hardship to the growers, as they can add the equivalent of the tare to the price of the cotton, but it will remove all inducement for the grower or compressor to load the bales with unnecessary and objectionable packing. Here is a definite action that can be accomplished at this conference. It was agreed to by all interests at the Atlanta Conference of 1907, but the spinners failed to carry it out to any large extent.

Standard bales of at least thirty pounds density, both square and round, should be approved by this conference and, if possible, some way devised to make it profitable for the varied interests that handle cotton to turn out bales that come up to standard requirements. There is a large economy to be attained by proper methods of baling and sampling, both as regards saving of waste and reduction in cost of transportation and insurance. How these savings can be made effective in inducing the production of satisfactory bales is a problem to be worked out by the committee to which this subject is assigned.

Gin compression may be the final remedy, but while this is being developed and put in practical operation, is it not possible for all the compressors to increase the density and to use new burlap, conforming as far as possible to standard requirements to be established by action of this conference?

We are fortunate in having with us eminent bankers from abroad. In co-operation with our American bankers, it is hoped that valuable suggestions can be made as to the best methods of carrying and financing cotton, so that, even with the present abnormal conditions of exchange, American cotton can be supplied to foreign countries, and especially to our allies in the recent war. To aid in financing the cotton crop, warehouses under Government supervision, which can assure reliable certificates of grade and staple should be encouraged.

It is evident that there are many important subjects to be discussed and that definite decisions can be arrived at that will be far-reaching. It is, however, essential that there should be some simple form of permanent organization, to endeavor to carry the resolutions adopted into effect. A committee is carefully considering this matter and will undoubtedly make suitable recommendations.

Textile Machinery Requirements of the Immediate Future

By E. KENT SWIFT, Whitin Machine Works, Whitinsville, Mass.

[Illustrating the gigantic scope and wide ramifications of the cotton industry of the world, Mr. Swift estimates that of the more than 1,600,000,000 of the world's population, about 800,000,000 are only partially clothed, and about 250,000,000 wear practically no clothes. But of the clothing worn, about nine-tenths of the raw material is cotton, and the popularity of cotton goods is increasing. China and Japan alone in the last six years are said to have doubled their consuming capacity. The machinery requirements for such an industrial colossus is almost incomprehensible, and almost seems beyond the ability of the world's machine shops to produce. For instance, the world has increased its cotton spindles from 45,000,000 in 1860 to approximately 151,000,000 in 1919, though probably nearer 155,000,000 spindles. Pointing out the reduction of hours in the cotton mills of the world, excluding the Orient, has reduced the world's working spindleage on the basis of 151,000,000 spindles, by 18,875,000 spindles, it is apparent in a great many places that the shorter hours have also worked for a loss of efficiency and that a further percentage might be added to the loss in spindles. He estimates that a total of 77,000,000 spindles will be put into operation in the next decade. To supply this spindleage at this rate of about 7,500,000 annually would mean approximately a 34 per cent greater production by the machine shops than they were able to make between 1900 and 1910, the most flourishing period of cotton manufacturing in the world's history. Therefore, he predicts that for the next decade the world is going to be short of spinning machinery, and that the cotton industry meanwhile faces a period of great activity and prosperity. Editor Manufacturers Record.]

Civilization, prosperity and the manufacture of cotton goods go hand in hand, and a study of the immediate requirements of the world in machinery to produce cotton goods comes down very properly to a study of the fundamental conditions underlying the cotton industry today. Such a study must necessarily view the industry as a whole and take into consideration the world statistics as to population, state of civilization, needs as shown by past statistics, and conditions which have arisen from the war. A proper analysis of such a large subject is, of course, beyond the brief scope of this paper, but before coming to detailed figures it is proper to call your attention to the basic condition of the cotton industry.

According to a statement attributed the United States Department of Agriculture, it is estimated that of the 1,500,000,000 of the world's population, one-half is still only partially clothed, while about 250,000,000 wear practically no clothes at all, but of the clothing actually worn, nine-tenths of the raw material is cotton, and the popularity of cotton goods is constantly increasing.

I append herewith a table showing the world's spindles, cotton production and population from 1870 to 1914 as follows, from which it will be noted that in this period of 44 years the number of spindles increased 153 per cent, cotton production 314 per cent and the population of the world 28½ per cent.

WORLD'S STATISTICS OF POPULATION, COTTON SPINDLES AND COTTON PRODUCTION.

	Population.	Spindles.	Cotton production (500-lb. bales).
1870	1,310,000,000	57,800,000	5,750,000
1880	1,439,000,000	73,725,000	9,285,000
1890	1,488,000,000	88,700,000	12,522,000
1900	1,543,000,000	105,681,000	15,893,591
1910	1,616,000,000	134,526,000	22,433,269
1914	1,683,000,000	146,397,000	23,804,422

WORLD'S STATISTICS OF POPULATION, COTTON SPINDLES AND CONSUMPTION FOR 1913.

Country.	Population.	Spindles.	Consumption (500-lb. bales).
America	165,000,000	32,107,000	5,899,000
Europe	440,000,000	99,509,000	12,146,000
Other Countries	1,078,000,000	12,439,000	4,887,000
	1,683,000,000	144,055,000	22,932,000

I have separated these figures as well for the year 1913, showing them itemized by countries, in order to bring to your attention the facts that the distribution of cotton manufacturing rests entirely with the civilized and more forward countries; that the population of Europe and America in 1913 was approximately 605,000,000 people out of a total population of 1,683,000,000; that of the world's population, a little more than one-third monopolizes the manufacture of cotton goods.

As civilization and prosperity increase cotton manufacturing is stimulated. A very good illustration of this is in the figures of the per capita consumption of cotton in the United States. In 1870 this was only 12 pounds, and in 1917, 35 pounds. The purchasing power of the American people is well illustrated by the fact that the per capita consumption in England and France in 1917 was only 10⅝ pounds. In part, this difference may be ascribed to the more wasteful methods in this country.

But viewing the cotton industry and its future requirements, we are brought face to face immediately with the fact that nearly two-thirds of the world's population is as yet in its infancy in the extensive use of cotton goods, although the use of cotton in the more backward countries is on the constant increase. Statistics on cotton production and manufacture could be added indefinitely on this general subject. China and Japan alone in the last six years have about doubled their capacity.

To come to the subject of this article—the machinery requirements of the immediate future—I think we must first go very thoroughly into what has been the history of the cotton industry, and view this history not in the light of its more prosperous years, but over periods of decades. I accordingly append herewith a table showing the increase in the number of spindles in the world covering the last 60 years as follows:

NUMBER OF COTTON SPINDLES IN THE WORLD BY DECADES SINCE 1870.

Year.	United Kingdom.	Continent of Europe.	United States.	Other Countries.	Total.
1860	30,300,000	10,000,000	5,000,000	338,000	45,688,000
1870	37,700,000	13,000,000	7,100,000	1,000,000	58,800,000
1880	40,000,000	21,000,000	11,375,000	2,350,000	74,725,000
1890	44,500,000	26,000,000	14,200,000	4,000,000	88,700,000
1900	46,200,000	32,000,000	19,000,000	7,000,000	104,200,000
1910	53,300,000	40,600,000	29,300,000	11,300,000	134,500,000
1919	58,000,000	41,500,000	35,000,000	16,500,000	151,000,000

In using statistics, I might say in passing that there is more or less variation among authorities. Unfortunately, there are no accurate figures as to spindleage, for it is a difficult subject with which to keep in exact touch, there being no census reports covering production of machinery, deterioration and repair. In the main, however, authorities agree. Accordingly, the figures which I have given are to be taken merely as approximate. As a matter of interest, I have used the figures of the United States Census with some modifications.

An analysis of the above statement will show that the world's increase in spindles from approximately 45,000,000 in 1860 to approximately 150,000,000 in 1919 is as follows:

1860-1870	13,112,000
1870-1880	15,920,000
1880-1890	13,975,000
1890-1900	15,500,000
1900-1910	30,300,000
1910-1919	16,500,000

The average increase for the six decades has been 17,550,000; for the last three decades, nearly 21,000,000 per decade. In other words, if our increase in spindles is to be charted on a constant line, we should expect to increase our manufacturing facilities in the next 10 years by approximately 21,000,000 spindles.

What is of importance in this connection is not only the number of spindles to be put into operation—and I use the word "spindles" as expressing cotton manufacturing in the terms of a unit—but also the ability of the world's machine shops to produce what will be required. This also brings into consideration a number of factors of which very little is known and about which very little has been published. I should prefer to treat the subject by an analysis of what has happened in the past rather than by an estimate of what can be done in the future.

Accordingly, let us take the period of 1900 to 1910, the most flourishing period of cotton manufacturing which we have had in the world's history. In that period new spindles to the extent of 30,300,000 were added to the world's supply. In 1900 the world was credited with 104,000,000 spindles.

Any estimate as to what the depreciation of existing spindles amounted to in this period is more or less of a guess. Cotton-mill

machinery depreciates not so much through actual wear and tear as from the progress of invention and improvement in the machines themselves. Many of us, no doubt, have seen machines 50 years old still running satifactorily, performing their functions in the mill, but very few of us would grant that these machines were practical to run in competition with their more modern prototypes.

I have, therefore, taken a very cautious depreciation figure of 2½ per cent to get my depreciation figures on the world's machinery. This figure is quite open to criticism, but I submit it simply as a very conservative estimate.

Allowing this 2½ per cent on the 104,000,000 spindles operating in 1900, we have the depreciation for the decade 1900 to 1910 amounting to 26,000,000 spindles. This, added to the new spindles put in during this period, makes a grand total of 56,300,000 spindles, giving the combined output of all machine shops operating on cotton-mill machinery manufactured of 5,600,000 spindles per year. This figure I would consider a fair estimate.

Now, coming back to what we are facing in the immediate future, we enter the year 1920, according to the table, with 151,000,000 spindles. My own figures would indicate that this should be nearer 155,000,000. During the war period, which was a time of stress and tremendous demand for production, when every machine capable of running was put into operation, there was very little replacement or repair. It has been a very common story to hear of machines which have been running for 15 or 20 years resold for more than what was their original price.

Undoubtedly, a very large percentage of loss should be taken from existing machines to make a proper depreciation. However, for the sake of conservative argument, let us take 2½ per cent on the 150,000,000 spindles as being the depreciation which we shall have to meet in the next 10 years. This 2½ per cent amounts to 3,750,000 spindles, or for 10 years 37,500,000 spindles. If the normal increase is to be based on the last 30 years, new spindleage to be put in to take care of the normal growth of the world would amount to 21,000,000 spindles, and we have a total of 58,500,000 spindles to be taken care of, or a yearly production of 5,850,000. As we have shown the production of machinery for the years 1900 to 1910 averaged 5,600,000 spindles, it would seem that on this basis the manufacturing ability of the machine shops would balance the need.

The abnormal condition, however, which we are facing today, and the one which merits our most serious attention, is the one which has been created by the movement for shorter hours throughout the world. At no time has the world needed its productive facilities to supply food and clothing for the starving and the ill-clad more than at the present time, and yet we are brought face to face with the problem that today facilities which under normal conditions were adequate are now entirely inadequate.

Where a product rests on the speed and length of run of the machine the production is in direct proportion, in a large part, to the number of hours of its continuous operation. In no industry is this more true than in the cotton mill. The machinery has been brought to a high degree of mechanical perfection. The theory of manufacturing, covering speeds and productions, is well known and fixed. In the main, we cannot expect to increase present speeds and productions materially, and today our factories, by reason of short hours, are reduced from 10 to 15 per cent in the time which it is possible to run them. In other words, the world's spindleage on comparative figures is to be reduced proportionately with the reduction of hours.

In almost all the New England States hours have been reduced from 54 or 55 to 48 hours. In parts of the South they have been reduced from 60 to 55, and the trend is toward still further reductions. In England the working schedules have been reduced from 55½ to 48 hours. On the Continent, Italy, France and Germany have all adopted the 48-hour schedule. To be sure, a small percentage of the world's spindles in Japan, India and China are still running full time, but as a whole it is fair to reduce the world's spindleage today by approximately 12½ per cent, or one-eighth, which on the basis of 151,000,000 spindles is 18,875,000 and that a further percentage might be added to the loss in spindles through the inefficiency of labor throughout the world. This undoubtedly, however, will in time correct itself, and no account is taken of same.

Adding the 18,875,000 spindles to the figures we have considered previously, namely, the normal increase of 21,000,000 spindles and the loss to be made up for depreciation at 2½ per cent per year, or 37,500,000 spindles, we have a total number of 77,875,000 to be put into operation in the next decade if we are to progress in the same normal way as we did prior to the war. This would call for new spindleage to be put into operation each year of something over 7,500,000 spindles, which would mean approximately 34 spindles. I cannot see how this reduction of hours can be taken in any other way than as an absolute and direct loss in spindleage.

I am leaving aside what has been apparent in a great many places—that shorter hours have also worked for a loss in efficiency per cent greater production by the machine shops than they were able to make between 1900 to 1910.

It is not the purpose of this article to interest cotton manufacturers to go into the machinery business, but it will be apparent from a casual examination of these basic figures that for the next decade at least the world is going to be short of spinning capacity, and that, based on pre-war conditions, it is going to be quite a difficult thing for us to catch up with the demand.

The line of argument which has been presented so far has been based on the normal progress of cotton manufacturing, but the scope of this article would probably not be complete unless some mention were made of the innumerable new uses which are being found yearly for cotton products, all of which absorb spindles.

Prior to 1900 there was no automobile industry. Today, at least 2,000,000 spindles in the United States alone are working exclusively on automobile fabrics. In 1916, 18,465,000 tires were manufactured in the United States; in 1917, 25,840,000. In 1918 production was limited by agreement with the War Industries Board. In 1919 the estimated production is 40,000,000 tires. At the present time it is calculated that 150,000 tires are being consumed per day, and plans are now being made to increase this production 50 per cent, which in terms of spindles means in the next year or year and a half 1,000,000 more spindles will be put into the automobile industry in the United States.

New uses for cotton have been found in the mercerized yarns in place of silk, artificial leather, insulation for wires, wall coverings as a substitute for paper, etc.

The abnormal situations created by the war might also be touched upon. The table shows very clearly the loss in machinery which the world has suffered during the war period. From the 30,000,000 spindles added in the 10 years from 1900 to 1910 we dropped nearly 50 per cent, to 17,000,000.

In Continental Europe the estimated loss in spindles from actual destruction will vary from 1,000,000 to 1,500,000 spindles, and approximately 40,000,000 spindles existing there have been practically out of commercial production during this entire period. In Russia alone, with its 9,000,000 spindles, there is undoubtedly considerable replacement to be made some time.

You have seen the picture as the pencil in the hands of statisticians would draw it, perhaps, some of you might say, with the aid of one interested in the same of machinery. It is not, however, my desire to write a brief either for the cotton trade or for its hand-maid, the machinery industry. The two are most intimately connected. If the world is short of spindles and the demand for cotton goods is practically inexhaustible, prosperity, activity and work await you.

The brief which I might make for the machine builders of the world is that we hope in time to so increase our facilities as to meet the requirements of the textile industry, but we, as well, have had our plants reduced in output through shorter hours, and the conditions of manufacturing today are none too easy. It is safe to prophesy that for the next four or five years, or perhaps for the next decade, our facilities will be taxed if we are to make up this astonishing deficit in productive capacity.

Statistics covering the normal progress of the world to date may not hold true for the immediate future, and conditions as they exist at the present time may change. The world is poorer today; its purchasing power, notwithstanding high wages, is not as great as it was in the prewar years, and perhaps the paper yarn and paper cloths so ingeniously contrived by the Central Powers during the war period may help out the situation, but fundamentally, the cotton industry today faces inevitably, in my opinion, great activity and prosperity.

Improved Methods of Cotton Financing

By JOHN BOLINGER, Vice-President of the National Shawmut Bank, Boston, Mass.

[The present foreign exchange system is one which seriously complicates the problem of cotton financing, and Mr. Bolinger states that some assistance in the way of correcting this situation may be looked for in the form of direct credit or loans, but he believes that it is imperative that some sound method be devised to enable Europe to get to work. More money is required to finance the cotton crop than any other principal crop raised in the United States because of the great amount of hand cultivation necessary. The cost of a single crop of cotton raised in the South will continue to make it necessary for the use of outside capital in financing it, and the use of "acceptances" represent an ideal method of furnishing assistance from new and wide sources of funds, states Mr. Bolinger. Cotton shippers should be educated in the use of trade acceptances for financing their domestic shipments, advises Mr. Bolinger, thus leaving full use of bankers' acceptances for employment in the most important purpose of financing export trade. Mr. Bolinger hopes that expansion of the bonded warehouse system and the development of a uniform method of classification of cotton will promote a more general use of acceptances. As a means of handling the problem of financing sales to Europe, he suggests the creation and outlines the operation of a so-called "Bank of Reconstruction," certain features of which would be applicable to the financing of cotton and other raw materials and food stuffs.—Editor Manufacturers Record.]

It is only through the bringing together of men of wide, practical experience and broad views, representing all sides of industry and finance, that we can expect a satisfactory solution of the world's problems. In no other way would it have been possible to deal with the world's cotton problem, rendered more difficult of solution by wide variations in its details due to differences arising from national, economic, industrial or financial conditions. This conference has afforded the foreign representatives an opportunity for intimate study of the methods by which we handle this most important American staple, from the planting of the seed to the marketing of the manufactured product.

It may be interesting to note that the American cotton industry has in the past safely withstood two serious crises. The establishment of State banks and their practical support of the cotton-growing industry, not only undid the damage resulting from the failure of the United States bank, but gave an impetus to every phase of the cotton industry. During and after the Civil War the cotton industry suffered more perhaps than any other. The Morrill Act of 1861, putting a duty on raw cotton, and the subsequent passage of the War Tariff Act aided in its rehabilitation.

After a lapse of 60 years we find the cotton industry once more shaken by conditions that are the outgrowth of war. Today, however, the problem has become a world problem, and, fortunately, it is recognized as a world problem, as this gathering so eloquently testifies. World conditions that are attributable to the war have made the question of future financing of cotton, from soil to user, one of the most pressing problems growing out of the past five years of strife.

The fixing of the date for the conference was especially fortunate in view of the conditions that have developed with regard to foreign exchange rates. The present exchange situation is one which seriously complicates the problem of cotton financing. Its effect upon our export trade in general can be seen in the drop of $300,000,000 in value of our exports from the July level. The premium on dollars today represents a considerable item to be added to the increase in commodity prices. Some assistance in the way of correcting this situation may be looked for in the form of direct credits or loans. Whatever form it takes, it is imperative that some sound method should be devised which will enable the nations of Europe to get to work in repairing the damage due to the war. In rebuilding this country after the Civil War, the men of the Southern States provided an inspiring example of the sort of courage and enterprise which I am confident Europe can and will emulate.

In so far as our financial problems are concerned with the financing of cotton, it is encouraging to note that we are better equipped for the task than we were before the war. The creation of the Federal Reserve Bank system in 1914 provided us with a financial equipment so complete and so flexible that it has met successfully every extraordinary demand made upon it during the past five years. Most important among the benefits resulting from its adoption has been its value in financing our vast crops of cotton and other raw staples. This has been particularly true in the case of cotton, both because of the great size of the crop and the extent of the market for both raw and manufactured cotton.

It requires more money to finance the cotton crop than any of the principal crops raised in the United States. The important part played by hand cultivation in the planting and picking of cotton is in a large measure responsible for this. In view of the natural difficulties associated with financing cotton the necessity should be apparent for employing the most economical and efficient means available.

Following the beginning of the crop movement, around September 1, the first demand for funds is made upon local banks in the interior farming districts. These banks, in turn, call on the larger banking institutions in the cities. These first calls are usually for funds to pay labor employed in picking and harvesting the crop, and to assist the oil mills in handling seed. In localities where the farms are small, the farmer is generally financed by the local storekeepers from the time of planting until the crop is harvested. They supply him with food, tools and needed materials up to a sum representing about 40 per cent on the estimated value of his crop. In the case of tenant farmers on large plantations, under syndicate or corporation control, the corporation will generally extend assistance to the individual farmer through its own stores or other agencies. Aside from these, many farmers have sufficient means to enable them to handle their crops of cotton without assistance. The factors are, of course, dependent on their local banks for assistance in carrying the farmers. As a result, the local banker may find his credit pretty well extended by the time the crop begins to move.

Financing of the factors or cotton brokers represents the next step. Bankers in the towns where the cotton gins are located arrange for payment for the cotton sold by the factors, furnishing cash against tickets issued to the buyers. These tickets the banks hold as collateral. When sufficient cotton has been accumulated to permit of making a shipment, the local banker delivers the tickets to the agent of the railroad in town and receives a bill of lading covering shipment to a compress point. A number of such shipments from points throughout the district may be required to fill an order. As none of it can be realized upon until the full quantity has been accumulated, a large amount of funds is necessarily tied up as a result of advances made by local bankers.

After the arrival of the cotton at concentration points comes the demands of mills and cotton exporters. These demands begin about October and continue throughout the winter. From the time the cotton is gathered until it has been converted into a manufactured product, fully six months' time must elapse under the most favorable conditions of trade. A phase of the cotton financing problem not generally appreciated is represented in the demand of oil mills, manufacturers of fertilizer and other by-products of the cotton industry.

As I have already said, the passage of the Federal Reserve Act was of the first importance in supplying a satisfactory medium or the financing of the movement of the cotton crop. The old system of financing on a basis of single name commercial paper is giving way to the use of acceptances and of advances against overdrafts. The advantages resulting from the acceptance system have been made possible by the provisions of the Federal Reserve Act.

While many local bankers and cotton shippers throughout the South have recognized the advantages of using acceptances, the use of these instruments has not yet become general. There can be little question that the size of a single crop of cotton raised in the South will continue to make it necessary that outside capital be available for the task of financing it. The use of acceptances represents an ideal method for furnishing such assistance, as it makes available new and wide sources of funds.

While many of you gentlemen are, of course, familiar with the method of using "acceptances" for the financing of cotton shipments, I may be pardoned for briefly describing typical trans-

actions in which they may be employed. To begin with a domestic transaction: A Boston cotton broker purchases cotton to the value of $50,000 from a dealer in Galveston. As the Galveston man wants immediate payment for the staple, the buyer arranges with his bank in Boston for an acceptance credit for 90 days, that being the time he will need to turn the cotton by resale. The Boston bank then notifies the Galveston cotton dealer that they will "accept" his draft, drawn at 90 days' sight for $50,000, provided bills of lading and other documents are attached to the draft when presented. The Galveston dealer then delivers the cotton to a transportation company, secures a bill of lading for the shipment, which he attaches, with invoice and other documents, to a draft on the Boston bank. Taking this draft and documents to his own bank in Galveston, he discounts it and receives payment for his cotton. The draft and documents are then forwarded to Boston by the Galveston bank for "acceptance." After "acceptance" the draft is returned to the Galveston bank, or it may be sold in the open market and the amount placed to credit of their account. The Boston bank retains title to the cotton until its customer provides for payment of the draft through the resale of the cotton.

As an example of an export shipment of cotton financed by the shipper, the process may be outlined as follows: A Dallas cotton firm purchases from a local factor 1000 bales of cotton at a cost of approximately $160,000, with the intention of shipping it on consignment to a dealer in Liverpool, England, and with the understanding that the cotton will be sold within a month after its arrival at Liverpool. As a precaution against loss from price fluctuation before the final sale of the cotton is made, the Dallas firm "hedges" their purchase by selling futures against it. They then arrange with their local bank for financing the shipment of cotton from Dallas to Galveston and later to Liverpool. As the desired financing is to be done by the use of "acceptances," the Dallas firm arranges for an acceptance credit authorizing them to draw upon it at 90 days' sight up to 80 per cent, or about $128,000 of the value of the cotton, provided, of course, that the railroad bills of lading are attached to the draft. After the bank has "accepted" this draft, it is sold in the open market and the proceeds are placed to the credit of the Dallas cotton firm, which uses the funds to pay the seller of the cotton. In addition to the collateral security represented by the railroad bills of lading, the bank secures an "acceptance" agreement in which the Dallas firm pledges the 1000 bales of cotton as collateral for the credit. When shipment is to be made from Galveston to Liverpool the bank will arrange for such shipment and will receive and hold the ocean bills of lading covering it. In the meanwhile the Dallas firm will provide for marine insurance to cover the cotton while in transit to England. This policy will be turned over to the accepting bank. Shipment having been made, the bills of lading, policy and other documents will be forwarded by the Dallas bank to its correspondent at Liverpool, with instructions that they receive the cotton on its arrival and place it in the warehouse pending further advices. Upon arrival of the cotton at Liverpool the agents of the Dallas firm are notified. They proceed to make sale of the cotton to one of their customers. When the sale has been concluded the Dallas bank instructs its correspondent at Liverpool to deliver the cotton to the buyer against payment of the invoice in English currency, or against an undertaking to pay the invoice within 10 days. When the amount of the invoice has been collected it is placed by the Liverpool bank to the credit of the accepting bank under advice. The bank then converts the amount of the credit into dollars at current rates and applies the proceeds to the payment of its acceptance.

Through the use of acceptances a local banker in a Southern cotton district is enabled to make more complete use of the credit facilities he may have available. It permits him to extend to his customers a full service based on economy of operation for meeting their financing needs. In doing this the local banker has at his command the full support which may be extended to him by his correspondent banks in Boston, New York, Chicago, New Orleans and other important financial centers.

As indicated in the examples cited, a banker in a small Southern town may arrange for some outside bank to accept his customer's bills. After "acceptance" the Southern banker may discount these bills himself. These acceptances represent a form of investment not subject to restrictions as to amount which the cotton banker may take over as investments. They provide an admirable and liquid reserve against emergencies as they find a ready sale in the open market. It may be impossible, through lack of funds, for the cotton banker to discount the acceptance himself. In such case he has only to arrange with his correspondent bank, which will not only "accept" a bill, but buy it afterwards, crediting to the Southern banker any profit on the transaction which may be due him.

I should like to say a word about the necessity for developing a wider use of the trade acceptance in the financing of domestic shipments of cotton. There can be no question that the financing of cotton at the present time calls for the most economical and efficient use of our financial resources. It is important, however, that we take measures to insure that foreign and domestic trade shall bear its own special burden. Each should be financed by the means which can be employed most economically. Cotton shippers should be educated in the use of the trade acceptance for financing their domestic shipments, thus leaving full use of the banker's acceptance for employment in its most important purpose, that of financing export trade.

The reason for this should be obvious. Under the Federal Reserve Law the aggregate amount which member banks are permitted to "accept" for financing domestic transactions is limited to 50 per cent of the bank's capital and surplus. In the case of import or export a bank may obtain authority to extend its credit through acceptances up to a full 100 per cent of its capital and surplus. It should be clear to everyone that the unnecessary use of bank acceptances for domestic financing handicaps our efforts toward the financing of export and import business by diminishing our credit resources otherwise available for that purpose.

It is perhaps due to the unfamiliarity of some cotton shippers with the trade acceptance that a false impression may exist as to their liability under such an instrument. It is encouraging to note, however, that this impression is being gradually dispelled. Shippers are beginning to realize that their situation is no different as regards their liability under a trade acceptance than when, as in the past, they have shipped cotton to Europe and drawn at six months' sight, or longer, on foreign bankers or merchants. In either case theirs is only a contingent liability until payment of the draft.

There is every reason to expect that the recent enactment of State laws providing for the establishment of publicly owned cotton warehouses and development of various plans in connection with the warehousing of cotton should prove of value as aids in dealing with the broad question of financing. The predicted purpose of the Federal Government to so amend the United States Cotton Warehouse Act that receipts for cotton will be negotiable at any bank is an indication of the practical preparation which is being made for safeguarding the future of the industry.

The development of the warehousing policy should permit the marketing of the cotton staple according to the needs of the manufacturer. Apart from the general benefit in distributing the burden of financing more scientifically, marketing of the cotton crop from warehouses will mean the practical elimination of the enormous yearly weather loss due to the improper storing of cotton. A recently enacted Texas law marks a distinct advance toward a solution of the matter of local financing. Under the Federal Reserve Law a member bank may accept negotiable paper based on a non-perishable agricultural product. The Texas law permits corporations, having proper authority, to issue bills of exchange against cotton in warehouses and compresses. Such bills may be for three, six or twelve months, the corporation guaranteeing payment.

The development of the cotton warehousing system of receipts and the world-wide market for the staples make cotton an ideal commodity for financing by the use of acceptances. It is to be hoped that expansion of the warehousing system by legislation and the development of a uniform method of classification of cotton will promote a more general use of acceptances.

A most important step toward promoting trade in cotton and other commodities, which unsettled conditions abroad make difficult without an expansion of financial facilities, is represented in the recent passage of the Edge bill by the United States Senate without a dissenting vote. This bill will make it possible for organizations, under Government control, to engage in the task of rebuilding trade between the United States and foreign countries. It expands our national banking system, and will enable our banking institutions to co-operate more fully in export financing by granting them authority to invest in corporations formed under the act. The bill permits the creation of corporations which will

engage in general banking business in connection with export trade, extend credit abroad and loan money on real and personal property. A feature of the bill is of special interest to cotton shippers concerned with the financing of their shipments abroad. Under this provision, the corporation may extend long-term credits and issue debentures there against to be sold here. The proceeds of such sales to be used to pay for goods purchased.

Some time ago I suggested the possibility of creating a so-called Bank of Reconstruction as a means for handling the problem of financing our sales to Europe. Certain features of this suggestion would be applicable to the financing of cotton and other raw materials and foodstuffs. For the financing of cotton and these other materials, provision would be made for self-liquidating credits on a term of six months. Revolving credits similar to those employed recently in the case of Belgium might be adopted. For the financing of railway equipment, building and other construction material, machinery, etc., credits, to be liquidated by instalments during a period of five years, might be granted. Branches of this Bank of Reconstruction might be established where necessary in Europe. They would control the distribution of the materials covered by the five-year credit and deliver them to purchasers against an advance of perhaps 20 per cent in cash, taking chattel mortgages for the balance. Against these mortgages these banks would issue their own mortgage bonds, to be guaranteed by the government of the country where the branch of the Bank of Reconstruction was located. These bonds would be payable in American dollars and redeemable in gold in the United States. A certain portion might be drawn and redeemed each year of the five-year term. The creation of such banks might provide essential support to the operation of corporations formed under the Edge bill, as such bonds might be purchased by them in payment for commodities shipped.

I am hopeful that one of the results of this conference will be the development of a practical plan for meeting the problem of financing our foreign shipments of cotton. In view of the earnest spirit of co-operation everywhere manifested among delegates to the conference, I am encouraged in anticipating that a satisfactory solution will be found. I am convinced that this entire matter of financing of our future foreign trade, whether of cotton or of other commodities, is one calling for support by the general public. The people as a whole have profited largely during the past five years with but little cost to themselves, and it is but right to expect that they will assume their proper share of the burden of financing the future trade of the country. I am confident that they are willing to accept their new responsibility in the matter to the extent of absorbing such investment securities as it may be found necessary to offer.

Personally, I am not pessimistic of the future of the cotton industry. There is no doubt but that we are passing through a very critical period. Fortunately, however, there is no good reason for believing that the future holds worse in store. The problems before us are admittedly serious, but the nations represented here have successfully solved even graver problems during the last five years.

An International System of Cotton Reports and Statistics

By O P. Austin, Statistician of the National City Bank of New York.

[The wide ramifications of the cotton industry which in a greater or less degree affects the every-day life of hundreds of millions of people are strikingly presented in the following article. For an international system of cotton reports and statistics Mr. Austin would inaugurate a properly organized and financed system conducted by men thoroughly acquainted with every branch of the industry and equipped to present periodically the results of their studies in concise and uniform statistical terms. It should operate with close co-operation, having the aid of the great governments of the world and possess facilities for adjusting and correlating the information gathered, supplemented by a close and frequent study of conditions of planting, cultivation, production, manufacture and distribution. Such an organization, he believes, would prove of great importance to all of the interests which extend to every part of the world and to every class of inhabitants.—Editor Manufacturers Record.]

An industry which represents over $20,000,000,000 of invested capital would seem to be justified in the creation of a statistical system to supply with promptness, accuracy and uniformity of terms the information desired by its great financial and industrial interests, and also the 6,000,000 people to whom it gives employment and the hundreds of millions to whom it supplies most of their clothing and a limited share of their food.

Cotton has become an increasingly important factor in world economics. The quantity produced in the world has, according to accepted authorities, grown from approximately 500,000,000 pounds in 1800 to 1,500,000,000 in 1850, 7,500,000,000 in 1900, and 14,000,000,000 in 1913, the latest normal year. Cotton production and consumption in the world, speaking in very round terms, is about thirty times as much as in 1800, ten times as much as in 1850, and nearly twice as much as in 1900. The quantity produced in 1800 was only sufficient to supply an average of about three yards of cloth for each inhabitant of the world, while the crop of 1913, the latest normal year, estimating that 90 per cent of it is turned into cloth at an average of five yards per pound, would supply an average of about 36 yards per capita for the greatly increased population of the present time. All of these statements are necessarily in very round terms, especially for the earlier years in which figures of both production and consumption are admittedly only approximations.

The 6,000,000 persons employed in the production, manufacture and distribution of the finished product represent 30,000,000 mouths to feed; the land on which it grows is worth about $6,000,000,000; the factories which turn it into cloth another $6,000,000,000; the finished product which they turn out in a year is worth $15,000,000,000 at the door of the factory, and the capital invested in the growth, manufacture and distribution of the world crop and its product aggregates approximately $20,000,000,000.

Yet when we attempt to study the details of this enormous and rapidly growing industry we find only fragmentary information, gathered, it is true, by many intelligent and painstaking individuals in different parts of the world, but lacking in basic sources of information or identity of terms in which their valuable information is stated. Their work, largely a labor of love, has been and is of extreme value, but its very value and the eagerness with which it is studied by the economic and business interests of the world is an evidence that a properly organized system, conducted with a closer co-operation and having the aid of the great interests engaged in production, manufacture and distribution, and also the aid of the great governments of the world, would not only adjust and correlate the information already gathered, but add to the "sum of human information" by a close and frequent study of conditions of planting, cultivation, production, manufacture and distribution, and thus prove of great importance to all of the interests, which extend to every part of the world and to every class of its inhabitants.

Such an organization, properly financed and conducted by men thoroughly acquainted with the subject in all its branches and equipped to present the result of their studies in concise and uniform statistical terms, should cover the progress of the world crop at every step from the time that the lands are laid out for planting until the finished product is in the hands of the consumer; using the telegraphs and cables where necessary to gather information, co-operating with the governmental organizations in their periodical records of crop industries and conditions, encouraging uniformity of statement as to measurement of product and records of movement, and communicating the result of their statistical studies to the various interests in the form of periodical, weekly, monthly and annual statements

In attempting to determine the amount of capital invested in the cotton industry of the world the first subject to be considered is the value of the land devoted to its production. The world's area devoted to cotton in 1913, the latest normal year, was about 70,000,000 acres, of which the United States acreage was 37,089,000, India 25,020,000, Egypt 1,789,000, and the remainder of the world about 7,000,000 acres. According to the most authoritative information available, the present average value of cotton land in the United States, including buildings and machinery devoted to planting and cultivation, is about $66 per acre. In India, the average pre-war value of cotton land was estimated at $75 to $100. In Egypt cotton land is worth approximately $600 per acre. As to the other 7,000,000 acres in other countries, in China, Korea,

Siam, Ceylon, Russia, Africa and South America, the average value is estimated as $60 per acre. Adding a moderate estimate for gins, compresses and other requirements of production and marketing, the capital invested in world cotton production would seem to stand about as follows:

ESTIMATED VALUE OF CAPITAL INVESTED IN WORLD COTTON PRODUCTION.

	Acres 1914.	Aver. value per acre.	Value of land and buildings.
United States	36,800,000	$66	$2,428,000,000
India	24,596,000	80	1,968,000,000
Egypt	1,822,000	600	1,093,000,000
Other*	7,000,000	60	420,000,000
Gins, compresses, machinery, etc.*			200,000,000
			$6,109,000,000

*Estimated.

Estimates of the capital invested in the cotton manufacturing industry of the world may be based in large part upon the known figures of the number of spindles in various countries. Manufacturing capital must include not only the value of the plants themselves, but also the ready cash necessary for financing the operations of the mill. The most reliable estimate of the capital invested in the world's cotton factories seems to be about $40 per spindle, including the mills and their needed funds for operation. Applying this to the various countries, on the basis of the number of spindles in each and present-day valuations, shows the approximate capital invested in cotton mills in each country about as follows:

ESTIMATED VALUE OF WORLD'S COTTON FACTORIES.

United States*	$1,500,000,000
United Kingdom	2,100,000,000
Continent of Europe	1,850,000,000
India	280,000,000
Japan	130,000,000
Others	200,000,000
	$6,060,000,000

*The valuation per spindle in the United States is estimated as slightly more than those of Europe, and especially than those of the United Kingdom.

The third great item of invested capital in the cotton industry, following consideration of the capital invested in the cotton lands and that invested in the cotton mills of the world, would be the values of the cotton goods turned out by the factories of the world, for it must be assumed that somebody's capital is constantly invested in these manufactured goods, from the time of their production until they pass into the hands of the consumer, often in parts of the world widely distant from the place of their manufacture.

This estimate is supplied by a painstaking German statistician, Mr. A. Kertesz, in his recent work, "Die Textilindustrie samlischer Staaten" (Textile Industries of the World). He estimates the value of the product of the cotton textile industries of the world in 1913 as $5,951,000,000, of which slightly less than $3,000,000,000 is accredited to Europe and approximately $1,000,000,000 to the United States.

This estimate, it will be observed, is for 1913. This would seem to justify an estimate of the cotton textile output of the world at present prices of $15,000,000,000. The fact, however, that the length of time of the passage of these goods from the factory to the consumer is estimated by experts to average but about six to eight months would seem to indicate that the value of the capital constantly invested in carrying this $15,000,000,000 worth of cotton goods is about $8,000,000,000.

There are also certain other minor items of the cotton industry in which considerable sums of capital are constantly invested. It is conservatively estimated that the capital invested in the cottonseed oil and cake industry and the products turned out by it must considerably exceed $1,000,000,000. More than $1,000,000,000 is probably invested in the knitting mills of the world and their products. Still another class of establishments closely connected with the cotton mills of the world are the dyeing, finishing and mercerization establishments, of which the world value is variously estimated at from $300,000,000 to $600,000,000.

All of these would make the table of invested capital in the cotton industry of the world stand as follows:

Cotton lands, including buildings and farm machinery.	$6,109,000,000
Factories (estimate based upon a world average of $40 per spindle)	6,060,000,000
Invested in the manufactured products (half of year's output)	8,000,000,000
Cottonseed-oil industry and output estimated	1,000,000,000
Dyeing, finishing, mercerization and knit goods	500,000,000
Total	$21,669,000,000

It is upon the above estimate, that the world's capital invested in the world's cotton industry exceeds $20,000,000,000, that the suggestion is made for the creation of a statistical organization which shall accumulate the best and latest information available relating to the industry in all its branches, from the planting of the seed to the sale of the finished product, digesting and distributing the information so accumulated in the form of weekly, monthly and annual statements, simplifying and standardizing the terms of expression so that they may adequately serve the reader, whether expert in cotton matters or merely one of the millions dependent upon cotton for his chief textile requirements.

Lack of statistical co-ordination and uniformity of statement is illustrated by a study of existing cotton statistics, and especially by a comparison of the methods by which the various governments of the world state their imports and exports of cotton and cotton goods. "Bales" made in certain countries represent 100 pounds, in others 200, 300, 500, and even 750.

In the matter of cotton goods the lack of uniformity is equally unsatisfactory when we attempt to compare the methods of the various governments. Great Britain and the United States state their imports and exports of cotton cloths in yards and values, but do not show weights of the goods so moved. On the other hand, practically all the countries of Continental Europe show the weight of their cotton goods imported or exported, but do not show the superficial area either in yards or any other unit of measurement. In the Latin-American countries most of the cotton goods imported or exported are stated in weight and value, but not in yards or other superficial measurement, while in all English and American colonies the imports and exports are stated in yards, but with no figures of weight.

Even these two distinct systems are apparently lacking in individual uniformity, since an inquiry recently established by the Research Committee of the National Council of American Cotton Manufacturers developed the fact that in the United States the exports are stated in square yards and the imports are in linear yards, while in Great Britain the statements of both imports and exports are in linear yards. It is therefore impossible to determine with accuracy the number of square yards of cotton cloths entering the international or domestic markets of the world or even the total weights of the cotton goods exchanged among the countries of the world.

To remedy this lack of uniformity in the Government records of cotton goods produced and sold, the governments now showing figures of superficial area in their import and export figures should be requested to also present figures showing the weight of the merchandise in question, while those now showing weight only should be requested to state the superficial area. No government should be asked to abandon the system in which its records have been kept up to this time, since such an abandonment of the former methods would destroy the comparability of the newly created records with those of earlier years, but the use of both weight and superficial measurement would permit comparability in the terms formerly used and at the same time add the other side of the picture, and thus give to the economic, industrial and business world a complete record of the cotton goods interchanged among the nations of the world.

Still other improvements in the details of the statistical presentation of quantities, measurements and classification of the cotton goods produced, imported and exported have been recommended by a committee of governmental officials at Washington and an alternative plan by the Research Committee of the National Council of American Cotton Manufacturers, both of which will be presented to this Congress and should have careful consideration as promising an addition to the present stock of information regarding international exchanges of merchandise of this class.

One feature of the cotton industry of the world in which the respective governments could contribute much valuable information with but small expenditure is that of more frequent reports upon the manufacturing industries. The United States, which has in recent years created a quinquennial census of manufactures, shows the number of cotton mills, the number of employes and wages paid, the consumption of raw material from at home and abroad and the quantity and value of the various classes of manufacture turned out, while the figures of the custom-houses show the share exported and the countries of destination. These reports of the manufacturing industries now taken quinquennially could easily and with a comparatively small expense be made annually.

especially in view of the fact that our census office is now a continuous organization with machinery well equipped for more frequent studies. The number of cotton factories in the United States is not large, and has increased only 33 per cent in the period from 1900 to 1914, while the value of the output increased more than 100 per cent, suggesting that the task of taking an annual census of the cotton industry would not be a great one in proportion to the importance of the industry represented.

The steadily increasing share which cotton and its products form of the world's requirements justifies a closer study of the statistics of manufacture, just as those of production are now being studied with greater care and thoroughness than ever before. The world consumption of cotton and cotton goods has more than doubled in the last 20 years, while the world population was increasing less than 10 per cent, and this fact alone would justify the great governments of the world in the closer and more systematic co-operation which properly organized governmental machinery could give to a great statistical organization created and directed by those familiar with the details of production, manufacture and distribution of the product.

Buying Cotton for Future Delivery

By RANDALL N. DURFEE, Border City Manufacturing Co., Fall River, Mass.

[Cotton as the raw material represents from 40 to 70 per cent of the value of the finished product, states Mr. Durfee, and with variations in the price of cotton running as high as $10 a bale in a single day on the Exchange, the manufacturer must protect himself by buying spot cotton or purchasing futures. Denouncing the gambling in cotton futures by speculators, he says: "Today speculation and not legitimate business largely controls the Cotton Exchange." He claims that it is the belief of many manufacturers that much of the violent fluctuations in the market could be entirely eliminated if the Government would decrease or abolish its reports on weather, condition and acreage, because these reports form the basis for rank speculation and for the most part make very little difference to legitimate traders.

Mr. Durfee claims that he never knew of a textile man even advocating any scheme having as its aim the lowering of cotton values, and no mention has ever been made to him which had the slightest reference to depressing the cotton market. He asserts that cotton manufacturers do not want to purchase their raw cotton at a price below the cost of production any more than they want to sell their goods on the same basis.—Editor Manufacturers Record.]

Whoever has a commodity to sell can sell that commodity only when someone wants to buy; often he must make the terms so favorable as to induce purchase; the purchaser generally dictates the conditions of sale regarding time of delivery and method of payment. Of course, there are exceptions to this general rule. This happened recently when the demand for most commodities being so much greater than the supply, the seller reversed the general rule and practically dictated to the purchaser under what conditions he would sell. The purchaser was willing to meet these conditions in order that he might secure the materials wanted. This rule applies especially in the textile world, and the handlers of cotton textiles have had to conform to same. Under these general conditions cotton manufacturers dispose of their finished product. While the price must be satisfactory to the manufacturer, he must make the deliveries satisfactory to the purchaser. In times past English merchants have sold for deliveries extending over a period of three years. They have been obliged to buy their raw materials in order to cover their contracts for this period or to protect themselves by purchasing futures in one of the exchanges. These extended deliveries are the exception, not the rule; yet it frequently happens that contracts of cotton textiles for deliveries extending over a period of 12 months are made either at a fixed price or at value. When sales are made at a fixed price the manufacturer must in some way protect himself with the raw material at the time of sale. The value of cotton cloth depending more or less on the price of cotton, the manufacturer need not protect himself at the time of sale against contracts sold at value, but can wait until the time for delivery.

Cotton is the raw material representing from 40 to 70 per cent of the value of the finished product. The other items of expense in manufacturing, such as labor, repairs, supplies, depreciation, interest and taxes are more or less stable, and can be fairly accurately estimated in figuring costs over a period of at least six months. With variations in the price of cotton of $10 a bale in a single day the manufacturer must always be protected in his supply whenever he makes a sale; he must have this protection on the very day he sells his finished product. This protection is possible either by the purchase of the actual cotton or by the purchase of futures in one of the exchanges, presumably the New York Cotton Exchange. On sales for practically spot or nearby deliveries for which ordinary staple cotton of medium grade is required, he can almost always cover his requirements by purchasing either spot cotton or cotton for immediate delivery The establishment of licensed warehouses at convenient centers of production, as well as of consumption, will allow not only the producer to sell against these sales, but the manufacturer to buy, and so both will be the gainers. The manufacturer cannot always purchase the raw material covering his sales in this way. On his sales for extended deliveries and sales of merchandise requiring either special grades or special staples obtainable only at certain seasons he must either buy his cotton for future delivery at a stated price, or he must always have on hand a stock of the special grades and staples covering his probable requirements for the season. He must either stand open as to price on his purchases of special grades and special staples which are not always obtainable, or must protect himself by selling futures against his stock, the product of which has not been sold, by buying in his futures to cover his sales of the finished product when made. A few years ago the manufacturer could practically protect himself in this way on all his purchases of raw material, including American staple cotton; today, so far as staples are concerned, he must either try to sell his yearly product when he buys his staples or remain unprotected, and so take chances in making a favorable sale later in the season. With the very radical fluctuations in the New York future markets of recent years there is a question in the minds of some manufacturers as to whether the man who stands open on his purchases is not in the long run fully as well protected as he who sells futures against his purchases. The methods of buying cotton for future delivery and of protecting purchases of raw cotton not sold against, vary in degree but are nevertheless practically the same, both requiring the use of the future market.

In buying cotton for future delivery the manufacturer has the choice of either buying futures in the New York market or making his purchase direct through a broker for such deliveries as he needs. Such purchases are to cover sales of his finished product and accordingly are at a fixed price known at the time of the purchase, whether futures are bought or a direct sale is made. In case a purchase is made, to have the desired quality and against which no product is sold, the price is based at so many points on or off a distant month, the price of the cotton being fixed when the product is sold and the futures called. The manufacturer may also buy such cotton at a fixed price and sell futures against same, calling these futures and pricing his cotton when he sells his goods. If the purchase at a fixed price is made through a broker, the manufacturer naturally presumes that the broker will protect himself either by the purchase of the actual cotton with the intention of selling and replacing until the time comes for the delivery against the original sale, or by buying futures in the open market and selling same when the time for delivery arrives and the actual cotton is bought. The broker may purchase cotton through his correspondent in the South, who, in turn, contracts with the farmer or his agent for delivery of so many specified bales of a specified quality, of his growing crop. In purchasing through a broker in which only a sale note passes, the manufacturer does not actually know whether his purchases are protected, and is more or less taking chances in so buying his raw material.

In my personal experience a manufacturer bought a contract for

future delivery which was placed through a Southern correspondent with an A1 rating in the commercial agencies. This correspondent bought part of the contract through the future market and part by direct agreement with the farmer for his crop. The broker had no means of knowing the volume of the business which his correspondent had on his books nor what protection he had taken in this particular transaction. Futures were bought against part of the sales, but the market made such radical changes that these showed a large loss when the actual cotton was bought, owing to the difference between spot cotton and the future market. The farmer who contracted to deliver at a very much lower price than the market at the time for delivery, either had a crop failure or found it expedient to sell elsewhere at a higher price and there was no apparent way to make him settle for the loss which the Southern correspondent suffered on account of this non-delivery. As a result the party from whom the broker made his purchase was forced to make a settlement and gave his notes to his various creditors. The principal in question is now holding a note for over $15,000, which is merely a "scrap of paper;" not one cent of interest has ever been paid up to date on same. Although this may be an isolated case, it actually occurred, and will occur again unless proper precautions are taken.

In transactions of this kind both buyer and seller should be protected; the transaction should be a purely business one, and in case of an advance in the market the seller should advance the proper margin to the buyer, who should do the same if the market declined. These remittances could either be made in New York exchange or by the use of acceptances arranged to mature at the time the actual cotton was to be delivered. The latter method has been used quite extensively by some of the leading dealers in raw cotton, with very great satisfaction to both buyer and seller. In my opinion, from the standpoint of the broker as well as that of the manufacturer, transactions involving the future delivery of cotton should be made in the way just described; the purchases should be put through responsible brokers whose business it is to see that proper precautions are taken to safeguard all interests. The manufacturer should be just as willing to advance the proper margins when the market is against him as to demand the same margins when the market is in his favor.

The volume of transactions in raw cotton calling for protection is of very much larger amount than is generally thought. In protecting these transactions, so far as my own experience goes, the manufacturer has always paid the full amount, but the broker has frequently been put to considerable expense in advancing margins on his own account, as the manufacturer has either refused to meet these margins or the broker, fearing competition, has not deemed it expedient to ask for same. In such instances the manufacturer should certainly pay the interest charges, but frequently he is not of this opinion. It is to the interest of both buyer and seller that all transactions calling for the future delivery of cotton should be safeguarded in every possible way.

In buying cotton for future delivery on which the price has not been fixed but only the basis given at the time contract was made, the final price may be either at the buyer's or the seller's call. Most transactions of basis cotton are made with the price left to the buyer's call, as generally the buyer is more interested in pricing his cotton than the seller. Many dealers who are in the habit of purchasing cotton for future delivery at a basis price have found it very advantageous to them to buy such cotton at the seller's option of fixing the price, with the understanding that the price should be fixed by the seller before the cotton is shipped. This method, in a way, safeguards the transaction, as the seller is only responsible before the cotton is shipped, and after the cotton is shipped the buyer is in a position to safeguard his own interests. Sellers prefer this method, as they are not called upon to furnish margins when the market is against them, and many buyers prefer it, as the handling of the futures is entirely under their control.

We are familiar with the "reverse English" in billiards, but American spinners do not make as much use of the "reverse futures" as their English cousins. Although "buying cotton for future delivery" is not "selling cotton for future delivery," yet one is the corollary of the other. In an address of this character attention should certainly be called to the following use of "futures." Spinners and manufacturers frequently accumulate stocks of yarn and cloth, especially in periods of disturbed trade. These accumulations cannot be sold, yet the machinery must be kept in motion. Such conditions are more apt to occur in falling than in rising markets. A manufacturer at such times is producing at a loss in an idle market, and his goods are depreciating in value; he may have to wait months before he can sell his product, and in the meantime he is facing tremendous losses. By the use of futures he can protect himself immediately; there is always a market for his goods. It has been truly said that cotton "futures" are the bonds of produce. Such a hedge may not be absolutely perfect; as a matter of fact, they are far from perfect, but they are the very best "hedge" obtainable anywhere. As the value of the product declines the value of the futures decline, as generally cloth and cotton advance, or decline on the same basis.

The establishment of the chain of warehouses at strategic points, both in the South and North, suggested some months ago by the Cotton Buying Committee of the National Association of Cotton Manufacturers, will be of incalculable value in safeguarding the interests of both buyer and seller in such transactions calling for delivery of cotton at stated periods over a number of months. The suggestion of these warehouses has become a reality with the incorporation of the Union Cotton Warehouse Organization Corporation. Engineers have been engaged to select sites for the location of same, and already have presented partial list of locations. All of these warehouses will be licensed under the U. S. Warehouse Act, and will be constructed in units capable of holding 10,000 bales. They will be built along plans approved by the fire underwriters, so that the cotton will be protected not only from the weather, but can be insured at a minimum cost. With these warehouses the seller of a contract will have the choice of either buying in enough cotton to cover same, if it is available, or buy in part, protecting himself for the balance in other ways. If he buys in the whole contract he is in a position where there is no risk; he can calculate absolutely what it will cost to hold and insure this cotton until time for delivery. He is also assured of the protection of the cotton, and he will not have to pay claims for damages to the bales. If he prefers, all the cotton can be shipped immediately to the warehouses nearer the spinner, the question of finance being as easily arranged for cotton in Northern warehouses as for those located near the source of production. Such shipments have three distinct advantages: first, they tend to distribute the transportation load; second, they provide more storage space for cotton not sold, and third, the spinner receives the cotton when it is needed, and is not obliged to wait on account of delays in transportation so common at congested periods. The purchaser of such contracts handled as above outlined is assured that his cotton is protected and that he will receive same, barring accidents, in good condition. In the case of all such contracts both the buyer and the seller should have equal protection.

Where cotton sold is held in store with ownership unchanged, although part payment has been advanced, arrangements may easily be made with the warehouse man, advising him of the money advanced by the purchaser, that the cotton in store was for his account, and that when shipped it was to be shipped for his account. These details may seem unimportant, but in times past the handling of cotton accounts has not been on a business basis, and it is essential that improvements be made in the financial side as well as on the physical protection of this great American staple. Buying future contracts in the market and protecting purchases of special grades of cotton available only at certain seasons and against which no sales of finished goods have been made can be included in the same class, although in some respects quite dissimilar. The manufacturer who has sold his product ahead and has bought futures instead of actual cotton, covering same, takes the chance of the basis of such cotton as he needs changing when the time comes for him to sell his futures and buy in the actual cotton; this basis may be higher or lower at the time of purchase than it was when he sold his goods. Of course, if his product was always sold in the same way the law of averages would probably even up prices, but generally spinners do not have the same inquiries repeated year after year, so they cannot depend on the law of averages. They must take their chance, in buying futures, to cover their contract, that the basis will be about the same or lower, and if they have sold goods at a close margin their judgment as to the basis may mean a profit or loss. During the past few years this method of protecting sales cannot be called good merchandising, as it involves more or less speculation. In the season just closed the basis on certain grades has differed over $20 a bale, and one can readily see how a contract apparently showing a good profit might in the end show a very large loss. There is no uncertainty in the case of protecting purchases of special qualities with sales of fu-

ture contracts, as the spinner can figure accurately the price at which he can take his cotton when the inquiry comes to him for his goods. In my opinion, this is the only absolutely safe way under present conditions for the spinner to use the future market; the element of risk is almost negligible. With the elimination of several of the undesirable grades formerly deliverable on contract, a spinner who is in a posiiton to use ordinary staples can buy contracts and accept the delivery of same, using the cotton so delivered to produce the goods sold. Of course, he takes his chance both as to grade and staple; cotton unsuitable in grade or staple may be delivered, in which case he will have to replace in the open market with cotton suitable for his needs. By paying a certain premium to the broker who handles his account, a spinner can arrange to accept only the grades suitable, and the broker through whom the transaction is placed arranges to either sell the undesirable cotton elsewhere or to redeliver same on the exchange. To spinners who can avail themselves of such cotton, the buying of futures to cover extended deliveries is most satisfactory.

The whole question of buying cotton for future delivery is so closely related to the conduct of the exchanges that any paper on this subject should devote at least a paragraph to the methods of the exchange. When futures decline, the planter wants the exchange investigated; when futures advance, the spinner has his grievance, alleging that speculation is putting the market up, not the law of supply and demand. Opinions vary, and many spinners as well as producers of raw cotton think that there should be a change in the conduct of business in cotton futures. There will be speculation so long as there are exchanges, but an exchange dealing with such necessities of life as cotton should limit speculation as much as possible. Today speculation and not legitimate business largely controls the cotton exchange. I quote from "Cotton," by George Bigwood, on this point: "The illegitimate speculator was the grower, the merchant or the spinner who simply dealt in 'futures,' selling that which he did not possess, or buying that which he did not want to use. The illegitimate buyer acts for his own personal gain, and has proved himself, whether grower, merchant, spinner, manufacturer or financier, to be a pure gambler, and the greatest menace to the industry. Gigantic speculation in cotton robs the grower, the spinner and the manufacturer of the legitimate return on their capital and for their labor. It robs the laborer of his work and his wages; it prevents men using their best energies in the growing, the spinning, the manufacture and the sale of their productions."

The business of buying or selling on the cotton exchange has become too easy. A person who buys or sells a hundred shares of stock on the stock exchange must either pay for same or deliver the stock, as the case may be. This naturally restricts the trading and, while there are fluctuations, there is not the action found in the cotton exchange. I do not intend to recommend what changes are necessary, as this involves complex problems requiring expert knowledge and careful study, but I do say that buying cotton for future delivery would be very much simplified if speculation in cotton on the exchanges could be eliminated There is no legitimate reason why the differences between months in the same season should be more than the carrying charges, as conditions governing are practically the same; if the speculative interest did not overshadow the legitimate business interests this would be the only difference. At present no owner of actual cotton is safe in carrying same by selling futures against such cotton unless he sells same before the time of delivery of his contracts. If he shifts from January to March or from December to March, instead of making the change by paying the carrying charges between the two months, he may find that he is being ground between two millstones. In buying his near months he is obliged to pay a premium because the speculative element has cornered that month, and in selling the far months he finds same at a considerable discount, thus facing a considerable loss by the transfer. He has no other recourse but to deliver the cotton, and this is not always convenient. Such a condition should be corrected, and would be very much alleviated if deliveries were made at points outside of the location of the exchanges. Under the new contract the great differences between months have apparently ceased, and changes to forward months can be normally made without the loss incident to speculative periods.

I have frequently heard persons representing all branches of the cotton world almost demand in highly speculative periods that the cotton exchange be closed. Every great business can be improved, and the cotton exchange is no exception, and yet without the medium of the cotton exchange the cotton interests would be in the same position as a ship without a rudder in a storm at sea. The exchange, the only protection to the grower and the manufacturer, is the clearing-house of the textile world. Without such protection the entire cotton interests would become one huge gamble and the present speculation, when compared to this condition, would be like comparing a "piker" to a large operator.

The word "stabilization" is being more freely used every day, and is considered by many people to be the panacea for all our present and past troubles; everything is topsy-turvy, and the world must return to stable conditions if we wish the unrest to cease. Undoubtedly the stabilization of the cotton market could at least partially help the manufacturer in the conduct of his business.

Many manufacturers are very firm in their belief that much of the violent fluctuations in the market could be entirely eliminated if the Government would decrease the number of reports on weather, condition and acreage. These reports form the basis of the trend of the market, and for the most part make very little difference to legitimate traders. One report is hardly announced before the uncertainty of the next report becomes a market factor. The trade is kept thoroughly informed from the private reports, which are, more or less, reflections of those made by the Government; these reports do not, however, have the official standing of the Government figures, and consequently do not cause the wide variations. In the course of the season we have the weekly weather reports, the acreage estimates, the condition figures and the bi-weekly ginning figures. If the weekly weather report is not exactly what is expected, the market reacts or advances, as the case may be, several points if conditions are sensitive, and they seem to be sensitive most of the time now. The ginning and acreage reports cause wider fluctuations, while the monthly condition figures frequently cause the limit set by the rules of the exchange to become operative. Orders to buy or sell are given on these condition figures if the report is above or below the figure expected; this, notwithstanding the fact that developments in the area devoted to cotton may have changed materially since the date on which the report was made. The final estimate made in December of each year by the Department of Agriculture as to the size of the crop is the most important report of the cotton season; this report has become the basis of sensational fluctuations, as it is freely used by the speculative element in the market. These reports make very little difference to legitimate traders, but they form the basis for rank speculation, and so the legitimate interests are made to suffer. These conditions have a direct effect on the buying of cotton by spinners, and certainly complicate the buying for future delivery. Many manufacturers and sound cotton merchants would welcome the abolishing of these reports, and the effort in compiling them turned to other channels. Whether buying for immediate or future delivery the manufacturer, like every other merchant, aims to buy as low as possible and on as favorable terms. For such a position he cannot be blamed. There has been more or less talk recently about concerted action on the part of manufacturers to depress the price of cotton. I am very glad to have the opportunity to state that in my own experience of nearly thirty years of active participation in the manufacturing end, I never knew of a textile man even advocating any scheme having as its aim the lowering of cotton values. All manufacturers aim to buy not only cotton, but money and all their supplies as cheaply as possible. In recent years, as a member of one of the important committees concerned with the buying of cotton, I have had the pleasure of close association with manufacturers, and no mention was ever made which had the slightest reference to depressing the cotton market; our efforts in the past few years have been only to improve the conditions surrounding the crop. What has already been accomplished means infinitely more to the producer in money value than to the spinner.

We have carefully avoided the question of the price of cotton, as the subject is too complex; and yet there are two or three points regarding the price which deserve at least passing notice. Cotton manufacturers appreciate fully that one part of a country cannot continue to be successful at the expense of the remaining part; for this reason they do not want to purchase their raw cotton at a price below the cost of production any more than they want to sell their goods on the same basis. Cotton supplies the clothing for the poorest people in the world as well as the richest. For this reason, outside of any humanitarian reason, cotton interests

should not hold for extreme prices nor use artificial means to limit production, as in the long run such a policy would not be advantageous. There is an old proverb in the best book of political economy that the world knows: "There is that scattereth and yet increaseth, and there is that withholdeth more than is meet, but it tendeth to poverty." As cotton is the chief factor in the cost of the manufactured product, labor is one of the chief factors in the cost of cotton. Labor is becoming so autocratic in its demands that there is no stability to any business. The whole world is accused of profiteering, and there is more or less truth in the accusation, but labor itself is in no position at present to accuse anyone without first taking the mote from its own eyes.

The radical labor element makes the broad assertion that wealth comes from the earth; that labor has taken this wealth from the earth, and consequently is entitled to all the returns from this wealth. This element loses sight of the great fact that God created this wealth and made man in His own image, endowing him with different qualities, giving each a particular work to do, according to his ability. A spade simply as a spade is valueless; the power of labor behind the spade makes it of value, and the directive force behind labor makes the spade productive. The parable of the talents is as true today as 2000 years ago; the talents which the Creator gave His children were given to be used and the world must necessarily suffer if they are not used to their full power. Capital, Land and Labor are all necessary to production; they each have their place and are each entitled to their reward. They are the means of production, but are valueless without a guiding hand, which may be called the Enterpriser who furnishes the directive force to accomplish the end sought or the production desired. The Enterpriser is certainly entitled to his reward. These four elements must pull together and must share in the returns of their efforts. The division must be equitable; if the returns of labor have been increased 100 per cent, the returns to land and capital should also be increased, otherwise one of the great elements of wealth is receiving more than its share. If Land, Labor and Capital are all receiving the increase, the Enterpriser who directs and takes the chances should receive his increase as well. The world today requires the combined strength of the four great elements of production more than ever before in its history. We are deluged with methods and schemes to bring peace to an overwrought world and to quiet the unrest. What the world needs is not methods, but to have the spirit of the Great Teacher instilled in our hearts; the spirit of sacrifice, of kindness and of love. Then rest and peace will come and there will be need of nothing else.

Uniform Classification of Cotton

By D. S. MURPH, Specialist in Cotton Marketing and Warehousing, Department of Agriculture, Washington, D. C.

[When cotton is exported according to various standards and subject to various methods of arbitration, the confusion and uncertainty that prevail with reference to values, Mr. Murph says, partially visualize the necessity for the adoption of uniform standards on an international basis. He conceives that the exporter and importer of cotton would prefer to trade according to international recognized standards, properly safeguarded, which would increase the incentive for correct shipments and largely eliminate unfair and doubtful trade practices. As uniform classification of cotton involves uniform arbitration, Mr. Murph suggests that a small international arbitration committee be appointed and clothed with sufficient authority to provide for a uniform system of arbitration which would insure stability of operation and consistency of results. The necessity for publicity in this and every phase of the cotton trade cannot be emphasized too strongly, states Mr. Murph, and that accurate and complete knowledge will go as far as any other factor toward stabilizing conditions in the trade. Reminding his hearers of the consideration due to the cotton producer when he referred to the long hours, hard labor and the uncomfortable living conditions under which the average cotton farmer has labored for the last fifty years, and to the small price generally received for cotton, utterly inadequate to assure the proper maintenance of the farmer and his family, Mr. Murph said his argument is based not on sentiment or sympathy, but it presents incontrovertible facts which seek the advancement of justice for the producer from every man who buys, sells, manufactures or uses cotton.—Editor Manufacturers Record.]

The very name of the present conference and a cursory glance at its program serve to emphasize the full appreciation by those interested in the production and consumption of cotton of the international character of the product and of many questions concerning its production, marketing and utilization. Probably to a greater extent than ever before it is realized that these various activities are in reality not antagonistic to each other, but constitute component and allied parts of one great industry—and probably never before has there been so great a realization of the necessity for sturdy and intelligent co-operation all along the line, from the farmer who produces the cotton to the manufacturer who turns it into cloth. Further, the lesson of effective international co-operation in matters of practical import taught by the great war will hardly be disregarded in business affairs. The present would appear, therefore, to be a most opportune moment for the consideration of a movement which means so much for simplicity and fair dealing in trade and for the scientific co-ordination of individual, class and national efforts.

On account of the relative importance of the American cotton crop, compared to the world's cotton crop as a whole, and for the sake of harmony of treatment, this discussion, except when otherwise indicated, will relate to American upland, Gulf and Texas cotton, but it is believed that the principles advanced will be applicable largely to cotton of all growths.

It is assumed that the present subject, "Uniform Classification of Cotton," contemplates world-wide uniformity. It involves more than might at first appear. It involves universal terminology as to classification; the promulgation of uniform standards, of world-wide application, for grade, staple and other qualities; the practicability of obtaining copies or duplicate sets of the standards; the proper maintenance of the standards; a universal knowledge of the standards, and uniform arbitration by uniform methods. It involves more than a few cotton exchanges in America and Europe, and more than exporters and importers; it is of great significance to the small merchant in the primary American markets, to the large merchant who assembles cotton for export or sale to domestic mills, to the manufacturer of cotton goods, and last, but not least, to American producers and to consumers in every part of the world. I trust that these broad potentialities will be borne in mind during the discussion.

It is surprising that, in a business so old and so well established as the cotton trade, there should be a lack of world-wide uniformity in the use of terms relating to cotton classification; for instance, that the term "1⅛-inch staple" should not have a universally recognized meaning, or that a trader should be required to translate, approximately, in his own mind—

Liverpool fully good middling into American good middling,
Liverpool good middling into American strict middling,
Liverpool fully middling into American middling,
Liverpool middling into American strict low middling,
Liverpool fully low middling into American low middling,

or vice versa.

For the first few years after its organization, the New York exchange had its own standards for cotton, and New York middling was not identical with middling in Southern markets, nor were the Southern markets consistent with each other as to classification. Confusion in the trade and criticism of quotations resulted. As the result of a conference held in Augusta, Ga., in 1874, and attended by representatives of practically all the spot exchanges and the New York and New Orleans future exchanges, standards, referred to as "Standard American Classification," were prepared for American cotton. These standards were adopted and put into effect on both the future exchanges. Their use in spot markets, however, did not become general, and the purpose of their promulgation was not attained. Under these conditions, the United States Department of Agriculture in 1909 promulgated grade standards for white cotton, their use, however, being entirely permissive. These standards were voluntarily adopted in 1909 by

the New Orleans exchange and in 1914 by the New York exchange as the basis for classification. They were followed and replaced by the official cotton standards of the United States, promulgated under the provisions of the United States cotton futures Act of August 18, 1914. The official standards were adopted for use on the future exchanges and in the designated bona-fide spot markets. Other American exchanges and organizations quickly accommodated themselves to these standards, and uniformity in the classification of cotton in America was achieved to a greater extent than ever before.

Experiences of cotton producers in selling cotton and recognition of the existence of more or less unstable price conditions in the primary markets led the Bureau of Markets of the United States Department of Agriculture several years ago to make some careful investigations with reference to these conditions. The results showed price variations in a number of markets of from $5 to $15 per bale for the same grade of cotton in the same market on the same day. As middling cotton was then bringing only 10 or 12 cents per pound, such price variations ranged from 10 to 30 per cent of the value of the cotton. In like manner, sellers and mills have delivered and paid for cotton of greater length than was necessary to carry out contracts or for the particular spinning purposes required. Such conditions constitute a patent commentary on the ignorance and want of intelligent use of standards in the buying and selling of cotton.

Unstable and uncertain conditions in American markets are accentuated by the use in America, despite the earnest efforts for uniformity, of two recognized sets of standards. While the United States official cotton standards are used entirely in future transactions, and generally in domestic transactions, export cotton is shipped and arbitrated largely on Liverpool standards. This situation, particularly in its reaction on the smaller markets, increases the uncertainty and instability of values. As exporters possess, at least to a fair extent, the knowledge and facilities necessary for harmonizing the two sets of standards, the condition in their case, while very irksome, is less baleful in its effects.

These circumstances represent on a smaller scale the confusion and uncertainty that prevail with reference to values when cotton is exported according to various standards and subject to various methods of arbitration, and visualize, to some degree, the necessity for the adoption of uniform standards on an international basis.

Since the promulgation of the United States official cotton standards, cotton, particularly of the better grades, has been sold and shipped in America largely according to these standards instead of according to local classification or private types of limited territorial application. I conceive that, similarly, the exporter and importer of cotton, unless there were some particular reason to the contrary, would be perfectly willing to trade according to internationally recognized standards, properly safeguarded and protected, instead of according to private types, and would, in fact, prefer trading in this manner, since it would relieve them of the trouble and expense of preparing, transmitting and handling such types.

I do not wish, in anything I may say here today, to be understood as criticising in any manner the integrity of members of the cotton trade. I have had considerable experience with American members of the trade, and this experience has shown them, as a class, to be conscientious and upright, and ready to co-operate with the Government at all times in any steps looking toward the clarification or improvement of trade conditions. But I believe that the exportation of cotton upon universally recognized standards, rather than upon varying standards and still more varying private types, would increase the incentive for correct shipments. The existence of unfair and doubtful trade practices would, under such conditions, become more readily apparent, and knowledge of such existence, once ascertained, would spread rapidly throughout the trade. Questionable dealings would be thus more easily exposed, and it is fair to assume that every cotton merchant and exporter, if only for reasons of personal advantage, would be more careful that all his shipments should be up to the standards required by his contracts.

The uniform classification of cotton involves, of course, uniform arbitration. It is interesting to note that, since the practice of shipping cotton according to the official United States cotton standards has become very general in America, reclamations between American shippers in primary markets and American buyers in large cotton centers have been greatly reduced. On the other hand, the necessity for arbitration between traders in America and Europe, where different sets of standards are used, is almost constant, and results in more or less heavy reclamations, knowledge of the possibility of which is one of the most disturbing factors in the trade. May it not be assumed that the use of uniform standards in international trading would be followed by results similar to, or even more important than, those accompanying the use of uniform standards in the American trade and would greatly lessen the necessity for arbitration?

In cases in which arbitration might be necessary, however, it should be conducted according to uniform standards and uniform methods. Arbitration, instead of being as it is now, so largely a matter of uncertainty, could be reduced almost to an exact basis, and when a system of exporting upon uniform standards and of arbitration upon such standards in accordance with uniform rules was once adopted, there should be little reason for shipments not conforming to specifications and little occasion for loss through ignorance of the probable final classification of cotton. A small international arbitration committee, properly appointed, duly recognized and clothed with sufficient authority, could quickly and readily provide for a uniform system of arbitration which would insure stability of operation and consistency of results.

The use of uniform standards upon all the future exchanges of the world, accompanying the use of the same standards in all transactions involving spot sales and arbitrations, with similar forms of contract on all such exchanges, would further contribute to stability in the trade through assured knowledge of the nature of hedges covering cotton consigned to foreign ports or purchased in America for import by foreign traders.

I cannot emphasize too strongly the necessity for publicity in this as in every phase of the cotton trade. Accurate and complete knowledge will go as far, perhaps, as any other factor toward stabilizing conditions in the trade. To secure the necessary publicity would involve, of course, proper educational steps. The United States Department of Agriculture, in fact, for several years has been carrying on an educational campaign demonstrating to farmers and buyers through actual experience the importance of accurate knowledge as to the classification of cotton and the concurrent necessity for classifying cotton according to officially recognized standards, and these efforts have met with marked success.

Following the adoption of uniform standards, a similar but world-wide dissemination of accurate information relative to the standards and other phases of classification, would have an important result in steadying the trade in cotton and facilitating business. Large traders and small traders are alike in his respect, that, where there is uncertainty as to cotton qualities and values, they protect themselves by allowing for a large margin of profit. This margin may or may not actually be realized, but if uncertainty as to values could be eliminated, the protection it affords would no longer be necessary.

In this discussion I have tried to point out that the need for uniform classification is the logical outgrowth of the international character of the cotton business. I have pointed out certain reforms in trade procedure and practice that would be possible under a system of uniform classification. I have tried to keep before you the thought that stability in market conditions is perhaps the greatest desideratum of the trade, and have tried to show that lack of uniformity and lack of knowledge as to classification result in uncertainty and confusion at every step of the trade, from the transactions of the one-mule farmer, who sells his cotton bale by bale at a cross-roads market, to the manufacturer who buys cotton by the thousands of bales.

May I pause here long enough to remind you again of the consideration due, in a study of the entire situation, to the producer of cotton, not only as a matter of justice, but as a matter of economic necessity. That a great deal of dissatisfaction has existed among producers as to the prices which they receive for cotton is, of course, well known. That such prices in many instances do not represent the real value of the cotton will not be disputed. Among others, the eminent English authority, Mr. John A. Todd, recognizes and deplores this feeling of dissatisfaction.

That the producer shall receive the price to which he is fairly entitled for his product is of great importance, not only because of the actual material values concerned but because of the effect his attitude of mind will have upon his activities. As the marketing

of cotton from the primary markets to the great export and import markets is reduced to a more nearly exact basis, the producer should receive a more nearly just price for his product, without in reality causing any resultant injury to the trade.

Conditions with reference to labor and other important matters in the American cotton belt have undergone such changes in the past few years that the production of a sufficient quantity of American cotton to supply the world's needs has become, in the opinion of many, a debatable question. The individual American cotton farmer appears now in large measure to have learned that the American cotton belt is admirably adapted, through climatic and soil conditions, to the production of crops other than cotton, and that it is, in fact, the part of wisdom for him to produce food and feed supplies needed on his farm and devote his surplus acreage and attention to cotton. Even within this limitation, however, there are some things that can be done, without increasing the relative acreage of cotton, to encourage its production in sufficient quantity and of proper quality for the world's needs, as well as to increase the producer's legitimate returns from his crop. These steps include, among others, fostering of the planting of better varieties of cotton generally, the unifying of certain local districts in the planting of particularly suitable varieties, instruction in the use of improved cultural methods, and, as presented in this discussion, the development of correct handling and marketing practices.

I am not sure that the interest of the producer in the uniform classification of cotton is not the most important phase of the subject, nor am I sure that his interest does not furnish the strongest argument for such classification. You have noted, during the discussion, some of the various steps that have been taken by the United States Government and the American cotton trade to relieve the unsatisfactory conditions that have existed in this country with reference to the standardization and classification of cotton and their resultant inequities, but such steps, apart from adjustment of international trade conditions, cannot furnish a complete remedy.

I might refer here to the long hours, the hard labor and the uncomfortable living conditions under which the average cotton farmer in America has labored for the past fifty years, and to the small prices, utterly inadequate to assure the proper maintenance of himself and his family, which he has generally received for his product. In so doing I would not be basing this argument upon sentiment or sympathy, or asking a charitable gratuity for the producer, but would be seeking merely the advancement of justice in accordance with enlightened economic principles, and hoping to impress still further upon you the interest in the producer's well-being of every man who buys, sells, manufactures or uses cotton.

On account of the re-enactment, on August 11, 1916, of the United States cotton futures Act, official standards were re-established and promulgated, but without change, on August 12, 1916. Standards for length of staple, effective October 25, 1918, were promulgated, the following length being represented by physical types:

⅞-inch, ⅞-inch, 1-inch, 1⅛-inch, 1¼-inch, 1⅜-inch, 1½-inch, 1⅝-inch, 1¾-inch.

Standards for cotton of lengths other than those named are descriptive. An approved method of pulling staple is included in Service and Regulatory Announcement No. 41 of the Bureau of Markets, which contains the public notice establishing official cotton standards for length of staple. Grade standards also were promulgated, effective October 25, 1918, for Sea Island and American-Egyptian cottons.

The grade types for white cotton are so arranged that there is a space of half an inch between the tops of the types and the covers of the boxes, thus minimizing disturbance of the surface of the types and changes in their appearance incident to the opening and closing of the boxes. In the case of the tinged and stained standards, however, color being of the greatest importance, the covers of the boxes are allowed to rest upon the types in order to prevent, as far as possible, a bleaching of the types by contact with the air.

The utmost care has been observed in the preparation of the official standards. The original set of official white standards, for instance, was prepared by expert classers, familiar with all growths of American cotton, from the United States Department of Agriculture and from the trade. These experts had before them copies of the proposed "International Standards," of the old Liverpool standards, of the permissive American standards of 1909 and of local standards from various American markets. Characteristics of cotton throughout the belt were carefully studied. As an illustration, in one season alone, the department collected systematically from farmers' sales in 70 typical markets in the cotton belt 35,000 samples, all of which were graded and stapled as preliminary investigational work in the preparation of standards.

The actual preparation and preservation of the standards and of practical forms thereof has been carried on under conditions as nearly perfect as human ingenuity has thus far been able to devise. As an illustration, sets of the standards are stored in glass vacuum tubes which, whenever deemed expedient, can be opened for comparison with the sets in use. All sets of practical forms that have been distributed are subject to inspection and condemnation by Government representatives.

Cotton used in preparing sets of practical forms of the standards for sale to the trade is purchased from all parts of the belt, and the same portion of each grade box is assigned to Upland, Gulf and Texas cotton as in the original standards. Further, every sample contained in each grade box corresponds in appearance with the sample having the same position in the original standards.

The official standards, unlike any others, so far as I know, have a legal status, their promulgation being provided for and their use being practically required, by the terms of the United States cotton futures Act, on American future exchanges and in all officially designated spot markets under the Act. Because of the importance of their required use, as well as because of their applicability to the American crop, they have been generally adopted at American spot markets and are used generally throughout all sections of America which produce or manufacture cotton. The Congress of the United States makes appropriations annually for demonstrating and promoting the use of the official cotton standards and for use in the preparation and sale to the trade of practical forms of the standards. The United States warehouse Act and a number of State warehouse acts provide for the use of the official standards in the classification of cotton stored in warehouses operated under these acts.

A cotton exchange was recently organized at Rotterdam. Careful consideration was given to the selection of standards for future trading in American cotton, and, as a result of the deliberations on the subject, the United States official cotton standards were adopted for that purpose.

On September 1, 1919, 1487 full and fractional sets of the official standards for white and colored cotton had been distributed, 1428 sets in America and 59 sets to foreign countries. On the same date 94 full and fractional sets of types for length of staple had been distributed, 90 sets in America and 4 sets to foreign countries.

Cotton for matching types is more readily available in America than in any other country. It is necessary to examine hundreds and sometimes thousands of bales in order to obtain a few bales that may be used in making up types. It is not to be understood that America objects in any way to the preparation and sale of copies as such in foreign countries. It is merely desired to point out that standards can be made up in America more satisfactorily and less expensively than in any other country, and consequently can be sold to the trade at a smaller cost.

It appears reasonable that American cotton should be standardized according to the needs of the American trade for handling the cotton in America, and that any agreements necessary for accommodation between American and foreign trade should be based upon American standards. Standards representing all the cotton grown in America are applicable to American cotton wherever it may be found. But, since not every foreign market imports extensively cotton from all sections of the American cotton belt, it may not be true that standards prepared with reference to cotton exported to any particular foreign market are applicable to the American cotton crop as a whole.

A World Cotton Federation—The Need and the Opportunity

By W. Irving Bullard, Manager, Textile Department, Merchants' National Bank, Boston, Mass.

[Describing the World Cotton Conference "as the greatest representation of all interests associated in any capacity with cotton that the world has ever assembled," Mr. Bullard states that "in its own sphere it rivals the great Conference at Paris." He thinks that from this international meeting should be born a permanent, enduring organization which would be a lasting benefit both to the world and to the individual. He points out that the nuclei already exists in various separate national or local organizations of different trade interests in this country and abroad and an international organization should embrace the growers and all other cotton factors throughout the world. Mr. Bullard advocates the organization of a permanent World Federation of Cotton Interests from a spirit of get-together, of co-operation and mutual service to all concerned.—Editor Manufacturers Record.]

Among the lessons driven home by the world war, the need of co-operation and interdependence stands well to the front. With the fighting stopped, we see a world engaged with huge tasks of readjustment. In particular we observe an entirely new and extreme form of economic dependence by the older upon the newer hemisphere, in terms of sorely wanted goods even more than in terms of billions of dollars. The world is today knit by vital needs even more than ever before.

These general observations apply to myriad forms of international business and trade. But particularly they apply to the great staple industries. Mankind must always satisfy its primary wants of food and clothing. If there is any world industry that today because of these new conditions needs correlation and vision, based on exact knowledge and on close co-operation in all its elements, it is the textile trade of the world.

Alike in raw cotton and in all the fabrics made therefrom is such a program indispensable, for the sake, first, of the world, and second, of our own trade interests. As in food and fuel, the world will for some time face a narrow margin between a limited supply and a clamorous demand, and the wise adjustment of these not only becomes the business of statesmen, but also calls for statesmanship in business. Beside the normal competition of buying and selling in world markets, there have now entered new world problems of supply and distribution, in terms of material, labor, transport and payment. The war has left the world facing these great and diverse needs to be met and measured alike in raw materials, machinery and finished fabrics and in such related questions as ships, exchanges and credits.

Had there been no world war and did there not now exist these problems which arise from war's destruction and dislocation, and promise to exert their disturbing influence for years to come, the proposition of a world cotton federation would still be timely and meritorious. It would be a logical step forward in the evolution of international industry—in the weaving of that world web of trade. The war has sharpened the need and emphasized the opportunity.

In the modern scheme of civilization, cotton is second only to food. Its production, manufacture and distribution are world matters. The most intelligent and efficient handling of these is a world concern. Also, whatever the relations as competitors or customers that exist among the many branches of our industry and the many countries of their location, such efficiency is a benefit to all. It is the fruit of contact, of counsel, of co-operation—and of the knowledge and action that spring from them. It does not impair, but enhances, self-interest. It does not limit fair and keen emulation and competition.

Now is the time and here is the place for formulative and organizing action. This year has seen numerous pilgrimages across the ocean both ways of delegates of one branch or another of our industry to seek new light and learn new facts in this great time of flux. Here is now gathered the greatest representation of all interests associated in any capacity with cotton that the world has ever seen assembled It is a world congress, with the power to enact. In its own sphere it rivals the great conference at Paris. It also faces world problems of a new peace era. From its comprehensive expert knowledge and its deliberative wisdom may readily be born a permanent, enduring organization, of lasting benefit to both the world and the industry. Its dissolving without attempt to leave such a heritage would be a calamity.

It does not have to attempt bold experiments in uncharted realms. The nuclei already exist in various separate national or local organizations of different trade interests, alike in our North and our South and in the continents of Europe and Asia. Among all these constituent elements I may be permitted as an American to mention one as an especial nucleus—the International Federation of Master Cotton Spinners and Manufacturers' Association. But also I may be permitted to point out that this association does not include America; also that it is international in function only so far as spinning is concerned. A true world organization needs a yet broader scope. It should also embrace the growers and all other cotton factors throughout the world.

Production of cotton is today international The manufacturing consumption of cotton is decidedly international. The financing of the whole industry is increasingly international. All these elements should co-operate for their joint benefit in solving separate or common problems.

The raising of cotton is primarily America's task and problem. The spinning of cotton is the primary concern of such a nation as England. But the world supply of cotton, of machinery, of yarns and fabrics is a world affair.

And on every phase of that world affair the world needs comprehensive knowledge—as to conditions, tendencies, prospects. An international bureau of statistics is a vital need in these after-war times, and will remain an agency of great permanent value. It is even more essential in an industry so complex, technical and rapidly changing than is the corresponding attempt in foodstuffs. And here again the nuclei already exist—not the least right here in New Orleans. (Hester.)

Here, in brief, is the subject matter, itself capable of much elaboration and subdivision. All that is needed is the will, the spirit. And behind that is the urge of these stirring and significant times.

That spirit is easily defined. It is in the air. It is that will to co-operate which won the war. It is the spirit that animated the war industries of the Allies. It is the spirit that among Americans has inspired such men as Hoover and Lamont and Vanderlip and Gary. Our President has thus expressed it: "The men who do the business of the world now shape the destinies of the world." The president of the Chamber of Commerce of the United States thus phrased it in describing the purposes of the International Trade Conference held three weeks ago at Atlantic City: "To thresh out the problems of world trade in the friendly atmosphere created by the get-together spirit."

Lord Robert Cecil thus voiced it late in August as head of the Supreme Allied Council: "We are entering a time which will be the greatest test of the basis of our civilization. The economic position is incalculably serious. During that period the closest consultation of the powers will be one of the greatest safeguards, not only to prevent national misunderstandings, but to meet problems of unexampled difficulty. The interdependence of modern nations is one of the products of modern civilization."

And Herbert Hoover, in seconding Cecil, said: "Thanks to the Supreme Council and to support far beyond what could have been hoped for from nations exhausted by war, we have been able to feed 200,000,000 people and to spend more than $800,000,000. Somehow, by some means, the sense of service and co-operation that dominated the Allied peoples during the war must be kept alive."

It is that spirit of get-together, of co-operation and mutual service that I advocate today in the world of cotton. We have here the unexampled and golden chance to create a Supreme Council of cotton. We have the wit; all we need is the will. The need cries aloud, all over a warshaken world.

If I may again take as an analogy the aspiration for a League of Nations—whatever its final precise form—I might also instance the report by our Ambassador at Paris that the French Parliament

will this autumn discuss a resolve for a financial society of nations to study and aid the financial operations of all nations. We here can definitely form our own league—not merely of the various nations, but, within and among them, of all types of enterprise embraced by that all-inclusive word—cotton.

There will be plenty to do for that world cotton council. I shall attempt only the briefest survey or catalogue of some of the subjects, largely universal in nature, that might well engage its continuing attention. And herein I speak from the vantage point of banking as well as of cotton.

There is the vital need of improving cotton agriculture, the world around—of correlating progress in production, in both quantity and quality. This is particularly the case in the latter—in raising the grade, in lengthening the staple. Train the world's cotton growers to the maximum care in seed selection and in cultivation. For us in America it is little short of an economic crime to raise cotton under seven-eighths inch staple—no higher in spinning value than the products of India and China.

Improvements here mean benefit to both producer and consumer. A good staple is the foundation for the constant and notable progress in converting which in new finishing processes and in amazing varieties of cloth has scored such great advance in recent years. Spinners in all lands want good cotton and are willing to pay its fair price. One or more cents a pound for it means little if the finished fabric will net a dollar a pound instead of one-half or one-quarter that amount from an inferior staple.

Then there is the matter of grades and standards, in which our own governmental agencies have done excellent work. The cotton trade itself can in its buying in the primary markets achieve a conspicuous reform if it will firmly establish the practice, not of making an average price regardless of staple, but of paying locally for each bale on its merit. Nothing else will so quickly stimulate good farming as such a premium on quality or discount on inferiority.

More, as well as better, cotton is—now at least from the mill viewpoint—the world's greatest prospective need. No matter what the current carryover or consumption may be, manufacture is sure to expand, both as a normal development and because of a world dearth of garments. It has recently expanded considerably in Japan, China, India and Brazil; textile capacity on the Continent will be restored rapidly, and English and American mills are sure to continue their progress. The world's population will keep on growing, its unit consumption increasing.

Speaking of this conference, the London Economist said in August: "Lancashire's representatives will press the importance of increased supply, and it is pretty certain that unless America is prepared to grow larger crops, fresh sources of supply will have to be found in other parts of the world." The British Board of Trade committee appointed in 1916 made a survey of the empire's possibilities, concluding that India offered the best field. In 1917 the Indian Government named a commission to study cultivation of longer staple. This year it has reported that although India as a whole cannot grow longer than one and one-sixteenth inch cotton for at least 10 years, an inch or slightly longer can now be raised in parts of Punjaub and the Madras Presidency, and one and one-quarter inches in the former with irrigation. Most of India's cotton is now under one-half inch and contains much leaf and dirt. Both the commissions recommend better seed mixing and grading.

Egypt and Sudan are looked to for increased output. The Spanish Government is aiding an increase of cotton acreage. There are possibilities in Africa, Asia Minor and Mesopotamia, and in Brazil, Peru and Argentina. Japan, whose textile profits have multiplied almost fivefold since 1913, plans to augment production in China, Korea and Formosa. England has its Empire Committee and its British Cotton Growing Association considering this problem. The latter society, which reports an average of 65,000 bales grown annually in African fields other than Egypt the past five years, looks for considerable expansion shortly.

America, however—growing 62 per cent of the world's production as against 24 per cent for her two nearest rivals, Egypt and India—must remain the great source of supply. And yet, here in the South the watchword is restricted output, on the theory that 11,000,000 bales at high prices mean more profit at less effort than 13,000,000 or more bales at moderate prices. Many associations of growers in the South are presenting cost sheets to show that prices around 40 cents are necessary under present conditions

The world asks more cotton; the South says less. Thus there develops a double conflict of apparent interest between the growers and the users of cotton, and among the many cotton-growing areas of the world. Here is where a world federation can be of universal service. Without attempting to umpire or arbitrate unless requested, it can serve as a forum for all these interests. They can better understand one another, they can learn from one another. At the least, such a federation can perform an inestimable service by keeping them all informed in an accurate, comprehensive way on the progress and the problems of all, in raw materials, machinery and fabrics on acreage, crops, consumption, stocks, construction, processes, costs and prices, markets and a hundred other details. In the shifting conditions after world war, the value of all this needs no elaboration.

Cotton and its products must be moved, as an important factor in the world's transport trade. Here again we have a war heritage of new conditions. America's cotton exports, for example, fell from a pre-war average of 8,840,000 bales to 4,530,000 in the 1918 fiscal year, and recovered to 5,295,000 in the year to June 30 last. But the value per bale has risen from $66 in 1914 to $163 in 1919. American exports of cotton goods have risen from an annual average of $46,000,000 in the five years before the war to $232,000,000 in 1919. Although the yardage has increased only 37 per cent between 1914 and 1919, the value increased 355 per cent.

What will the world buy from America in cotton, and what can we sell in it cotton goods, under the new after-war conditions? All other countries face alike these new selling or buying problems. A world federation can help solve them.

All these products must be paid for. Here, as one interested in banking as well as in cotton, I need only mention the vast problem of adjusting international credits. I need only recite the recent depreciations of European currencies as measured in the dollar, ranging from 15 per cent in case of England to 42 per cent against France, 49 per cent against Italy, 87 per cent against Germany, and about 92 per cent against Austria and Russia. The need of credit solution by credit extension is palpable and imperative. Europe may economize by ceasing purchase of all save necessities, which hurts America as a vendor of manufactures, textiles or otherwise; but Europe must buy the necessities, cotton especially, and is hurt by the premiums she must pay. Germany, to take a single example, needs this year 1,000,000 to 2,000,000 bales minimum for her 10,000,000 spindles; yet Germany wants to make no payment inside of a year. It may be long before the world's exchanges are back to the normal limits that prevailed prior to 1914, especially with reparation indemnities being paid. A world federation is essential to give a wide outlook not merely on what happens in exchange terms, but also on what these mean in cotton terms.

Then there is the matter of keeping track of individual credit standings in all countries—the aim from an American viewpoint of a corporation recently projected in New York. Herein a federation can be an effective general servant and safeguard.

Then there is the matter of transportation—railways and ships, land and ocean freights, charters and insurance, old and new routes and schedules to old and new markets, tonnage and cargo conditions, port developments, and many other factors affecting carriage the world over. World tonnage is some 7 per cent less than five years ago, and should be twice that percentage above 1914. How fast will new tonnage come? Will ocean rates drop materially in 1920, as some affirm and others doubt?

There is the important issue of adequate storage and its financing. Better warehousing is especially the need here in America. A co-ordinated system is needed to regulate properly the flow of cotton, making the warehouse receipts much stronger collateral. European co-operation in banking and insurance in this connection will be expedient. A world federation can do much to improve this international handling of cotton.

There is the matter of export combinations, first highly developed by the German kartels, now more fairly legitimized in this country by the Webb-Pomerene act. Possibly there may be created bounties and subsidies here or there, to be noted and watched.

In the field of manufacturing—too vast and complicated to dwell upon here—there stands forth the vital international issue of dyestuffs. In America, England, France and Italy alone, yearly production to the value of $5,000,000,000 is dependent on aniline dyes. Hence all eyes are on Germany and on the progress of Allied nations in emancipation from German dye control. The

Peace Treaty gives the Allies an option on 50 per cent of all dye stocks in Germany and on 25 per cent of all her future output—or 25 per cent of the pre-war rate if that is not equaled, together with power to fix prices. Yet there lingers the fear of German prowess and propaganda, despite the dye-making progress in Allied countries.

That progress has been notable, although many obstacles remain. Our dye makers claim adequacy except in a few high concentrates and a few types, such as mode. Lord Moulton and Dr. Levinstein as directors of the British Protective merger—the British Dyestuffs Corporation, in which the Government has £1,700,000 invested—are equally sanguine. Our Government has arranged for bringing over part of the needed German vat dyes for six months from October 1. We have had much agitation as to the merits of the two-year licensing system on German dyes which in the Longworth bill is linked with increased tariff protection.

Need I say more as to the value of such co-operative counsel as would be feasible under a world federation in this vexed but vital issue of dyestuffs?

An interesting incidental item regarding Germany is the information of the outside world considering war-time progress in development of substitutes for cotton derived from nettles and other vegetable substitutes.

After the war—in fact already—new changes in international tariffs are certain. We are just coming out of an era of embargoes and restrictions, not yet wholly lifted in Europe. The United States and Canada may readjust their tariff schedules. England has decided on a measure of colonial preference. A step toward protection is taken in the Lloyd George program against "dumping" and in the safeguarding of "key" industries. France this past summer began the study of general tariff revision, particularly as to negotiating new commercial agreements. Other European countries are doing likewise. Here is a fertile field for survey by a world cotton federation. Also it might keep a weather eye on taxation.

Our industry needs all the continued help that science can give. In England this year the Research Association for the Cotton Trade was established, with the idea of an Institute located in Manchester and experimental stations in the factories and cotton fields of the Empire. The Lloyd George program mentioned above contemplates national effort toward standardization and technical instruction. A conference to promote international scientific research was held in August in Brussels. We have in the United States a good beginning in our textile schools, agricultural department, etc. Let us link all these efforts in a world federation that shall enlist for common benefit all that chemistry, physics, agronomy or any other science may teach.

Let us likewise attain better commercial intelligence by aiding in the improvement of consular services, departments of commerce, trade commissions, inter country chambers of commerce and clubs, and attention to important expositions and fairs that have possible relation to our industry.

There are many matters of quasi-legal interest that concern us internationally—patent laws, trademarks, bills of lading, port dues, demurrages, damage regulations, labor and factory legislation, etc., to be codified and reported.

There is the item of the physical expansion of our world plant—not only in acres, but in brick, steel and machinery; the extent, the character, the new needs and ideas in construction. Likewise the progress in power, coal, oil and water. Also the big item of the collective bookkeeping of our industry, some comparative light on its general costs, overhead, wages, prices, credits, profits, etc. On all these things, without real conflict of competitive self-interest, a world federation can prove itself an invaluable servant.

There may at times arise the need of common watchfulness or defence in regard to common interests, against policies or laws or agitations. These are yeasty times in the world. Here in America we are none too placid over what we call the H. C. L. and the "profiteering" agitations—and we know that conditions are similar in other countries. We join in wanting justice and equity; perhaps we may need to join in guarding against economic injustice.

Then there is the great human element—in a two-fold form. Through a federation the men who are the premiers and generals in the great kingdom of cotton can come to know one another better; and acquaintanceship and counsel are two great human assets. The subordinates in the army of cotton will share that benefit.

And in the ranks is one of the world's great problems left by world war, and not peculiar to cotton—the status of labor. Cultivators, pickers, operatives, clerks, salesmen, they mount into millions. Unrest among labor is a byword today in every land. International thought upon the problem is one of the provisions in the League of Nations covenant. The need of encouraging productivity, in an almost discouraging atmosphere of personal relaxation or indifference, is one of the whole world's prime needs. The fair solution of questions of hours and wages is not easy in any country. The danger of a revolutionary radicalism is not a myth. The wise way of handling such matters as pensions, bonuses, profit-sharing, industrial democracy, living and housing conditions, apprenticeships, etc., is a live issue. On this, as on many other single topics mentioned, a whole treatise could be written. And all of these topics are international in bearing; they have a world significance.

What we need, then, as never before in the history of our industry—an industry producing a staple worth over $2,500,000,000 and a finished product worth nearly $10,000,000,000—is world counsel, world action. Many years ago, when the need was far less keen, British initiative through the International Federation of Cotton Spinners and the Manufacturers' Association linked up many countries, except America. Today America is your hostess. America has now a new world outlook which she did not have prior to those fateful days in 1917 when she mustered her youth and her treasure to share in the world war for freedom.

She knows and feels that the tasks of co-operation are not ended; that many of them are but beginning and are sure to be continuing. They can be better performed in generous concert than in jealous rivalry. A world of 1,750,000,000, in every clime, must be clothed as well as fed. We, in every country that raises or manufactures, that buys and sells, the precious white staple, should in proper measure be collaborators as well as competitors. Otherwise we are untrue to the great lessons of the very war that has made for us so many unprecedented problems.

Hence, my concluding recommendation—that having wrought the outline and determined the subject matter of such a world federation, and a method for its organization and recruiting, its first executive should be named from that country where the succeeding annual or biennial session of such a federation shall be held—presumably in the other great cotton continent of Europe. Now and here we promise you earnest and zealous delegates from our American industry—from the southernmost cotton field of Dixie to the northernmost mill of Maine.

Tennyson prophesied both the brotherhood of man and the federation of the world. We, in this era, can do now our chosen part—in cotton!

THE COTTON "BEAR."

Every man who seeks to break down the price of cotton is to the extent of his ability and influence striving to impoverish the cotton grower, to keep small children in the cotton field instead of in school, and to keep hundreds of thousands of women at work in the fields instead of caring for their homes, their husbands and their children; he is striving, consciously or unconsciously, to keep millions of people in the slavery of poverty and ignorance more desperate by far than the slavery of the black man prior to the Civil War. Every manufacturer, every cotton factor, every speculator who seeks to bear the cotton market is guilty of a crime which in this day is more culpable than was the trade of the slave-trader in olden days.

The Value of Statistics to Business

By Sam. L. Rogers, Director United St ates Census Bureau, Washington, D. C.

[Nothing has emphasized the value of correct statistical information as the necessity of it was demonstrated during this country's preparation for war by aiding in the successful organization of machinery, economic resources and man-power. As in war, it is asserted that statistics will play an important part in the period of reconstruction confronting us, involving a reorganization of our national life and readjustment of international relationships affecting governments, trade and industry, by furnishing facts regarding the population, trade, manufacture, agriculture, etc., and natural resources not only of this, but of foreign countries. The Census Bureau alone expends each year about $265,000 in the collection, compilation and dissemination of its cotton reports. Among other bureaus of the Government expending money in the conduct of their indispensable work in cotton are the Bureau of Foreign and Domestic Commerce and bureaus of the Department of Agriculture. Mr. Rogers states that these reports are published freely to all the world, and advocates the adoption of the principle of reciprocity in that each nation should recognize the obligation to furnish every other nation with the same kind of statistical information regarding the production, distribution and supply of its products which the other nation supplies to it. He believes that if this principle is followed it would tend to stabilize the price of commodities and in a degree remedy industrial discomfort and demoralization in working conditions.—Editor Manufacturers Record.]

Appearing as the representative and spokesman of the principal statistical office of the United States, I want to stress the value of statistics, for the reason that I believe that statistics—and especially statistics in regard to commerce and industry—have never been fully appreciated by the public generally, although unquestionably they are being appreciated to a greater degree today than ever before. It has been—and, for that matter, it still is—too common to brush statistics aside as the product of the theorist, or to neglect their use, in the belief that they are unreliable or have no practical utility, and to proceed uninformed with the enterprise in hand, trusting to self-confidence, energy and ability, for success and the development of the business.

The sagacious business man of today, making use of applied science, research, and statistics, demonstrates his superiority over both the uninformed adventurer and the precedent-following plodder, so that at present even the average business man is no longer content with information merely as to freight rates and labor supply, but wants to know the sources of raw materials, the demand for his product, the location of advantageous markets, and the means of getting into such markets on an equal basis, most of which information involves the collection of statistics. Thus he finds it necessary to seek the assistance of statisticians as well as economists and other scientific investigators, and, as a result, scientific research and statistical investigation have been growing in the estimation of the business public.

One of the instances of good coming out of evil is the extent to which this disastrous war just closed has shown the value—nay, the downright necessity—of statistical information along all sorts of lines, and the need for yet fuller and more comprehensive data than we now have.

First of all the Government had to ascertain, almost in a day, what man-power it could command for an army, or how many able-bodied men of military age there were within its borders. The fortunate provision that the Government had made in the establishment of a Census Office enabled it to answer its own question from the statistical record of its population by ages, classes, and sex. The estimate that some 24,000,000 of men of military age were within its borders, of whom approximately 10,000,000 were within the ages of 21 and 30, inclusive, was shown by the subsequent registration to be within 1 per cent of the truth. With a little study it appeared that without unduly depleting the man-power of our industries an army of more than 4,000,000 of the physically finest and best that ever wore uniform could be called to maintain the cause of the nation and of those with which it was associated in the most tremendous struggle in history.

Other demands for statistics soon followed. As a result of the wise foresight which I have already commended, the Government had in its statistical bureaus data as to the cotton and woolen fabrics available in the storehouses of manufacturers whereby these armies could be clothed; also as to the food products whereby they could be fed, including the supplies in our packing houses, refrigerating plants, elevators, and warehouses, as well as the number of livestock and the acreage of growing crops. Then there was the all-important question as to munitions with which to carry on the fight. The same source of information—Government records in the Bureau of the Census—gave the location of the country's manufacturing plants, their magnitude, equipment, and capacity.

It is not always easy to obtain such statistics, the industries affected sometimes protesting that the Government wants to know too much about their individual business.

I have given but a few illustrations. Many others might be cited, all emphasizing the vital importance of statistics when it became necessary to organize the machinery, economic resources and man-power of the nation on a war basis. In that crisis it was found that we needed all the statistics we had, and more. In fact, it has been said that, notwithstanding the value of the available statistics, the war found us in a state of statistical unpreparedness, as a result of which we were obliged to create new statistical agencies and to widen the scope of the statistical field covered; and I presume, gentlemen, that whatever difference of opinion there may be as to the desirability of maintaining a large army or adopting universal military service as a preparation for war, we shall all agree that when it comes to statistics the Government ought to have at its command all the data requisite for the immediate and effective utilization of the national resources in any crisis or emergency that may arise.

But leaving out of consideration the occasion for another great war, which we should be glad to believe will never rise again, let us consider the need of statistics in the period of reconstruction upon which we are entering. New conditions and new problems confront us involving a reorganization of our national life and a readjustment of international relationships affecting government, trade, and industry. We know that the rehabilitation of a great part of the civilized industrial world is dependent upon the raw materials, manufactures, and financial aid of the more fortunate nations which have escaped the devastation of war; and if the common weal is to be attained in greatest possible measure, if the beneficial intercourse and future progress of humanity are to be assured, international relationships must be founded upon the solid basis of mutual confidence and understanding. The exact nature of the changes and readjustments which must be made cannot be foreseen; but there is every reason to believe that they will be profound and far-reaching. Probably there will be a closer and more efficient organization of our national resources, with a greater degree of governmental regulation and control than we have ever known before. This presupposes and will necessitate an intimate and exact knowledge of social and economic conditions, such as can be obtained only through the instrumentality of statistics. In order that just relations and fair dealing may prevail among the nations, we must know the facts regarding the population, trade, manufactures, agriculture, and natural resources not only of the United States but of foreign countries as well; we must be able to measure statistically economic and social forces. Thus the need for accurate and up-to-date statistics is going to increase rather than diminish.

Having emphasized the importance of statistics in general, I wish, before closing, to add a few words regarding that particular class of statistics in which this conference is especially interested, namely, the statistics of cotton.

The Bureau of the Census, as you are aware, makes semi-monthly reports of cotton ginned to specified dates during the ginning season, and monthly reports of cotton consumed, of the number of spindles active in its consumption, and of cotton im-

ported, exported, and on hand. The magnitude of the undertaking is best understood when the number of establishments from which reports must be secured is considered. Roughly, there are 25,000 ginneries located in approximately 900 counties, in 18 States, engaged in the separation of the lint from the seed, and there are about 4000 public storage places through which the bulk of the cotton passes on its way to the 2000 American factories and to the ports. The Bureau expends each year about $265,000 in the collection, compilation, and dissemination of its cotton reports. The original legislation establishing this service to the public was not obtained without difficulty; but it is my opinion that today the wisdom of this legislation stands unquestioned, and that no Congress would feel justified in refusing to grant an appropriation for securing the important data thus provided for. If it were to do so, would the varied interests dependent upon this great staple that engages so much capital on the part of the farmer, the dealer, and the manufacturer move forward with the same assurance and feeling of safety as under the conditions made possible by the laws now in force?

I do not wish to appear in the light of trying to claim credit on behalf of the Census Bureau for all the statistical work done for the benefit of these interests. The Bureau of Foreign and Domestic Commerce, in the Department of Commerce, and certain bureaus in the Department of Agriculture are, under authority of Congress, expending much money in the conduct of their indispensable work in connection with cotton. The statistics as to imports and exports, to which I have already referred, are compiled by the Bureau of Foreign and Domestic Commerce. The Bureau of Crop Estimates, in the Department of Agriculture, publishes estimates in July of each year as to acreage planted; reports the condition of the crop at monthly intervals during the growing season, and in December makes an estimate as to the total product. The same bureau also publishes monthly cotton prices; and the Weather Bureau, in the Department of Agriculture, issues weekly statements as to the effect of the weather on crop conditions. Still other Government institutions deal with cotton; for example, the Bureau of Standards in the Department of Commerce, and the Bureaus of Entomology, Plant Industry, and Markets, and the Office of Farm Management, in the Department of Agriculture.

These statistics are compiled accurately, completely, impartially, with no purpose in view other than to ascertain and make known the facts. Their compilation involes no little expense, but they are published freely to all the world. No advance information is given out to any favored section, or class, or group, or nation. They are equally at the service of all nations and all peoples—the English, the French, the Italians—yes, and our former enemies as well, the Germans, the Austrians, and the Turks. Thus the Government of the United States makes every effort and goes to no small expense to obtain this information, and when obtained makes no attempt to exploit it for the benefit of our own people. Do we not thereby establish a certain claim upon other nations to render a like service? I am not altogether ignorant of the excellent statistical work being done by foreign Governments, much better work in some fields than is done in this country, but not so good, I believe, in this particular field of cotton statistics. But what I am leading up to is a principle of international policy which may be easily realized and is being realized in the field of statistics, if nowhere else. I mean the principle of reciprocity—or shall I say the golden rule of statistics?—the principle of doing unto others what others are doing unto you. Should not each nation recognize the obligation to supply every other nation with the same kind of statistical information regarding the production, distribution, and supply of its products which the other nation supplies to it? Would not this form of international comity tend to stabilize the prices of commodities and in a degree remedy industrial discontent and demoralization in working conditions, and thus aid in bringing about general prosperity?

The United States produces about two-thirds of the world's cotton crop. Regarding the other third we have not the same detailed information readily available and periodically compiled. Thus complete statistics are lacking. Is it then unreasonable to ask that other nations, through the agency of their Governments or through that of trade associations, give to the United States and all other countries the same detail regarding acreage, yield, consumption, and exports that the United States gives to them? We are about to establish a League of Nations. We hope there shall be no more war, and that in the future we may regulate international relations in a spirit of justice and altruism. To some this may seem an unattainable ideal or an idle dream, and even the most optimistic of us realize that if we are to attain that goal it must be by a slow process of development and education. It may take many generations. But in the meantime we might make a modest beginning by applying the golden rule in the realm of statistics.

The Growing of Cotton

By Jno. M. Parker, President Jno. M. Parker Company, Cotton Factors, New Orleans, La.

[All the civilized world is dependent in some degree upon the cotton industry. Mr. Parker graphically brings this out when he says that "a total crop failure would be one of the most far-reaching disasters of modern times, affecting every nation and bringing suffering, ruin and disaster to millions in every walk of life. He states that there is no line of industry in which the producer is called upon to do more quick and intelligent work, and run greater risk in the final outturn than cotton planting, and that every cotton dealer, broker or spinner should realize he has a joint community of interest with the cotton planter.—Editor Manufacturers Record.]

Today, throughout the world, next in importance to the production of wheat and breadstuff is the question of cotton production, as that plant not only furnishes clothing for many millions, but foodstuffs of the most nutritious value for man and beast.

The figures of those who earn their living from the cultivation, harvesting, ginning, transportation, manufacture and sale of cotton and cotton products run to such enormous proportions that the nations of the world should unite in a determined effort to eliminate insect and other pests and dangers, and to so increase the yield of cotton as to make their efforts a blessing to mankind.

With the increase of population and the march of progress of civilization there are not only more to clothe, but there are many more to wear clothes.

The average cotton crop of the world is more than three times the amount produced 40 years ago, and still is not enough for the world's ever-increasing requirements.

This gathering of the World's Cotton Conference and the printed reports of its deliberations should be a great educator to every firm and every individual directly or indirectly interested in the cotton business. Undoubtedly every branch of that industry has troubles of its own, but a clear understanding on the part of all as to the troubles the other section has will bring about a greater fellowship and a much better feeling than has prevailed heretofore. Many cotton buyers and many mill men and spinners who are totally unfamiliar with the difficulties and expenses which beset the cotton producer from the time the seed is put into the ground until he gins, bales and markets his cotton will probably be surprised to learn that for many years the business has not been remunerative to those who have devoted their time and energy to the production of that staple, and that even on the basis of high prices, the cost of mules, implements, machinery, feed, food and every commodity necessary to the production of the cotton crop has increased in leaps and bounds, and in addition to these facts, the cost of labor is many times more than it has ever been in the history of cotton production.

Every cotton dealer, broker or spinner should realize that he has a joint community of interest with the cotton planter and cotton producer. If possible, they should intelligently work together in an effort to produce all of the cotton and cotton products needed by the world and unite in a desire to see that each receives fair return for capital and labor.

With a total crop failure, it would work untold misery upon the

many millions employed in the varied by-products from that article, and millions of dollars of machinery would be thrown into the scrap heap.

One of the fundamental objects of a great gathering like this should be to bring closer together and with much better understanding the producer and the manufacturer. Every one handling cotton should realize that the first great burden falls upon the shoulder of the producer, as he is the man who takes all the risk in raising and marketing a crop, and from the time the seed is planted until the ginned product is put in the warehouse, no article of commerce has more enemies or is subject to greater vicissitudes from weather or insect damage caused by the cut-worm, the weevil, the cotton moth producing the army worm, and the boll-worm.

Cotton is largely a weather crop, and is essentially the plant of sunshine, needing an abundance of hot, sunshiny days to assure vigorous growth, heavy fruit and largely eliminate the various insect pests which do not thrive in what we call real cotton-growing weather. The rainy season, as a rule, is most disastrous to the planter, causing the rapid growth of grasses and weeds of all kinds, making it impossible to properly cultivate cotton, causing the roots to spread on the surface and not make that tap root which is essential for good crops. The extra expense of plowing, hoeing and cultivating caused by a rainy season often turns what promises to be a prosperous year into one which spells disaster at the end of the season. Early frosts are extremely disastrous, as the cotton plant is extremely sensitive to the cold, and the frost kills all of the young tender bolls and prevents their maturing.

Thousands of those who make their living out of the cotton industry have not the slightest conception either of the great risk or the often almost insurmountable difficulties which confront the producer of cotton. An enormous crop at very low prices practically benefits no one, and a very short crop at extremely high prices causes rank speculation where the principal beneficiaries are those who are fortunate enough to escape crop disaster. Intelligent co-operation and unity of action between the mills and the producers can be brought to pass on a basis which would mean steady and profitable employment and prosperity to each industry. None know better than do the spinners the amount of goods needed by the world and the amount of cotton necessary to manufacture those goods. Full information should be furnished to that effect to the producers. Profits on manufactured articles should be so regulated as to assure a reasonable return to the mills for capital and labor, and, in turn, full value and a comfortable living to the farmer and cotton producer, who is absolutely necessary and the most valuable asset of the cotton industry.

Securing Better Cotton Through Seed Selection

By E. C. Ewing, Scott, Miss.

[Some of the more important achievements in improving cotton through scientific seed selection are reviewed by Mr. Ewing in his historical sketch of the development of cotton growing. In discussing the problems involved in seed selection with cotton he recounts the efforts made to overcome the ravages of the boll-weevil by raising rapid fruiting varieties of cotton and at the same time increase the length of staple and fruition of the plant. Production of new varieties by hybridization is also discussed. Cotton breeders are cautioned to have their samples carefully valued early in the testing of a new strain for length and uniformity of staple, as well as seeking a high percentage of lint, to avoid wasting time unnecessarily on unprofitable types. He puts it up to the seed farms to make available adequate supplies of pure seed which will be needed by farmers from time to time.—Editor Manufacturers Record.]

In discussing some of the results that have been accomplished in the improvement of cotton and some of the problems involved in securing better cotton through seed selection, I shall deal with American conditions. Problems of other countries are, of course, different in many ways and require familiarity with local conditions. Their solution necessarily demands an understanding of those peculiar conditions as thoroughly as possible, and then the application of fundamental biological principles. These are practically the same everywhere. The problems which I shall discuss may, therefore, be regarded as typical, in a sense, of what may be encountered in any country.

Before discussing present-day problems of cotton improvement, it may be interesting to recall some of the achievements that have already been secured.

The classic example in America is that of sea-island cotton. From a tropical plant bearing lint which would only be considered mediocre by comparison with the best modern staples, the sea-island growers have developed their cotton to the present standard of excellence. The production of the finest staple became specialized to the islands off the coast of South Carolina, and for years their cotton, ranging in length of staple from two to two and one-half inches, was recognized as the finest cotton fiber grown anywhere. The famous crop lots, the cream of the island product, have long come from plantations where seed selection aimed at the finest and longest staple has been practiced for generations.

The fiber has not been the only feature to which the sea-island breeder has had to give his attention. To begin with, when sea-island cotton was first introduced to the United States from the West Indies about 1786, the plant was perennial and quite different from its present habit and form. By persistent selection of the earliest, most compact and productive types that appeared, the annual habit was established and the productiveness and the quality enhanced.

Another requirement that had to be met by the sea-island breeders was that of securing resistance to the cotton-wilt disease. The leader in the establishment of wilt-resistant strains was Col. E. L. Rivers of James Island. He developed a splendid type that was almost immune to the disease and which bore excellent lint.

In the Salt River and Imperial Valley of Arizona and California we now have a well-established cotton-growing industry based directly on the successful results of seed selection. In those regions there are now growing thousands of acres of Egyptian cotton, planted with varieties developed in America approximately within the last decade.

In 1902 experiments were begun by the United States Department of Agriculture in the growing of Egyptian cotton in Arizona. The results were rather unpromising at first, mainly because the imported varieties of Egyptian cotton, as grown in the new region, were unsatisfactory. In 1908 a new type was segregated from other selections which has since become the basis of the Egyptian cotton industry in the Southwest. This new variety, which originated from a single plant of Mit Afifi Egyptian, named Yuma, was a distinct improvement on the imported variety. It was earlier, more productive and uniform; the staple was longer and more regular. Not until 1912, when a supply of seed of this new variety sufficient to plant about 200 acres had been produced and its merits had been proved, was the commercial culture of Egyptian cotton recommended by the Department of Agriculture. Later the Pima variety was isolated by selection from the Yuma and is an improvement over the latter. These two varieties developed by Mr. Kearney and his associates of the Department of Agriculture, constitute practically the entire American-Egyptian crop. The production amounted to over 36,000 bales in 1918, and the prospects are that the culture of this cotton will be considerably extended.

In the testing of these new varieties, field trials were supplemented by spinning tests and the superiority of the new sorts both from the agricultural and the manufacturing standpoints was ascertained.

From the agricultural standpoint there has been great improvement during the last 10 or 12 years in the character of the cotton planted throughout the South.

Formerly, only a small portion of the cotton acreage was planted with seed of recognized variety; the bulk of the crop was just cotton. Now the reverse is true. A number of superior varieties have been developed and, as a part of the general improvement in

farming methods, the extensive adoption of better varieties has occurred.

Still a great many of the varieties grown are inferior. Variety tests made by the experiment station in each State through a series of years have demonstrated that many kinds of cotton ordinarily considered good are much less productive than some of the really superior varieties available. The loss in production from this planting of inferior sorts of cotton is immense. Ayers of the Arkansas station figures that the general planting of good varieties would increase the value of the cotton crop of the South by $230,000,000 annually.

Some of the best varieties have been found adapted to the wide areas of culture. In Texas and Oklahoma, the Triumph variety, developed by Mr. A. D. Mebine, a Texas farmer, has probably been the leading variety in the last 10 years. Lone Star, which is a more recent variety and of the same big boll, stormproof type, was originated by Mr. D. A Saunders of the Department of Agriculture, and is also very popular in the same territory. These two varieties are exceedingly well adapted to the western portion of the cotton belt and in that territory are perhaps grown more generally than all other kinds of cotton combined.

In the States east of the Mississippi River the Wannamaker-Cleveland variety is now probably more extensively grown than any other one cotton. This is a very productive short staple variety which has been developed in the past few years by approved systematic methods of breeding.

Exceedingly valuable results have been achieved in selecting cottons resistant to the wilt disease. In certain sections, particularly in the sandy soils of the Southeastern States, this disease has become so serious that ordinary varieties of cotton could not profitably be grown here. Through selection of the most resistant plants, growing in wilt-infected fields, some very valuable varieties have been developed by experts of the Federal Department of Agriculture and of the State of Georgia. In addition to being highly resistant to disease, some of these new varieties are rather early and productive. Their introduction has made it possible to continue cotton culture in a considerable area where, without wilt-resistant varieties, cotton growing would necessarily have been abandoned.

This type has received more attention in the matter of seed selection than short staple.

The pioneer in the development of superior sorts of upland long staple cotton was the late J. B. Allen of Port Gibson, Miss., originator of the Allen long staple variety. Mr. Allen started with a stock of cotton which he originally obtained in Louisiana. The staple of this cotton was about one and one-fourth inches. By selection he produced, about 1880, the well-known Allen cotton, which frequently pulled one and one-half inches or better. This variety was the foundation stock of practically all of the extra staple cottons which were grown extensively throughout the section bordering the Mississippi River until a few years ago, when a combination of boll-weevil depredation and economic conditions practically caused the abandonment of this class of cotton.

The culture of long staple upland cotton in the Southeastern States, particularly South Carolina, is based on varieties developed in that territory by scientific methods of selection The first of these cottons was Columbia, originated about 1902 by Dr. H. J. Webber, at that time of the Department of Agriculture. Webber cotton, which was derived later from the Columbia and introduced by Mr. D. R. Coker, was an improvement over the latter variety. It became very popular in certain sections of the Southeastern States and, to some extent, in the Delta as well. The Cokers, by introducing the Webber, Hartsville and other long-staple cottons, and by maintaining a gilt-edged establishment for supplying pure seed of their varieties, have rendered splendid service to the cotton industry. Their efforts and influence have greatly promoted the development of the new long-staple cotton culture in the Southeastern States

The boll-weevil has had the greatest influence on and has supplied the principle motive for cotton breeding work in the last 10 or 15 years. This pest has especially emphasized the importance of earliness in cotton. As a rule, the number of weevils is small in early summer, at the beginning of the fruiting season. In the usual course of events they increase in numbers more or less rapidly as the season advances, but with the rate of increase depending largely on weather conditions. At first the amount of infestation is not sufficiently great to cause serious damage. Late in summer or in early fall the weevils may become so thick that their depredations prevent any further setting of fruit on the plant. The result is that the weevil shortens the effective fruiting season of the cotton plant. The all-important requirement then is to make the crop in as short a time as possible, or to get as much fruit set on the plant as possible early in the fruiting season, before weevils become very numerous.

While there is still room for improvement of our upland short-staple cotton, the requirements have been much more effectively met in this class than in the longer staple class. Although short-staple upland cotton constitutes more than 90 per cent of the present product, there is no great concern over the question of supplying satisfactory short-staple varieties. The modifications required in short-staple types have not been so great as in the case of the long-staple varieties In fact, fairly satisfactory short-staple varieties have already been in existence for some time, and have been adopted in boll-weevil territory. The problem of improving the other 5 per cent or 10 per cent of the crop, which must be depended on to supply the trade with cotton ranging from an inch and an eighth upwards, is distinctly more acute.

The older long-staple varieties like the Allen and the old "Bender" cottons of about an inch and an eighth were too slow in fruiting and too late in maturing for successful culture under boll-weevil conditions. Although formerly grown extensively in the Delta, or alluvial region along the Mississippi River, these late types have been practically discarded in all sections where the boll-weevil has to be reckoned with. There is an urgent demand for satisfactory new varieties with at least a moderate length of staple to take the place of those types which have been discarded.

The question of improving long-staple cotton is much more complicated than in the case of short cotton. In the latter instance the problems are principally agricultural and are centered almost entirely on improving characters which promote productiveness. So long as the staple does not fall below a minimum length of about seven-eighths to one inch, the primary markets for upland short staple, as a rule, pay no regard to the quality of the lint. The attention of one who is trying to improve short-staple cottons, therefore, may be centered primarily upon qualities which promote high yield per acre. In long-staple work, on the contrary, the length and character of the lint must be as fully taken into account as the question of yield The problem is complicated to that extent, but is none the less interesting.

My own experiments in seed selection, which are being conducted in the Mississippi Delta, as well as the efforts of the Mississippi experiment station, are being directed principally toward the development of satisfactory cottons with some length of staple for culture under boll-weevil conditions. We are interested in fine cottons of all lengths, but the most urgent need in our section is for a satisfactory cotton of one-and-one-eighth to one-and-three-sixteenths inch staple. Our principal efforts are being put on that class of cotton, and there our most promising results have been secured. We are not entirely neglecting the extra staples nor even short-staple cotton, however.

For the past few years the demand for staples of one and an eighth to one and three-sixteenths has been fairly well supplied in the Delta principally by the planting of Express cotton. This striking new type was propagated from an individual plant selected in 1904 by Dr. D. N. Shoemaker of the Department of Agriculture. In North Texas, where it originated and was tested for several years, it was not at all liked The variety was discarded by the Department of Agriculture and barely missed becoming extinct.

Suspecting that this type of cotton might have considerable merit in the Mississippi Delta, I secured about one peck of seed of the discredited variety, which was planted at the Mississippi Delta branch experiment station in 1911. This cotton proved very promising at once, and efforts to trace down more seed from several bales which had been grown in Texas the previous season proved futile. All of the Express cotton subsequently planted on hundreds of thousands of acres came from that peck of seed.

Express came nearer than any other available variety toward meeting the demand for a long-staple cotton which could be depended on to produce a fair crop under boll-weevil conditions. It has since become quite popular, and within the last year or so has perhaps been grown more extensively than any other variety in

the Delta region of Mississippi, if, perhaps, we include the extreme northern end of that territory.

In spite of its popularity, the Express variety has some serious defects. While the plant grows well in the Delta region, it is not sufficiently productive. We have been comparing different varieties of cotton as to yield and value per acre for a number of years. As a result of these variety tests we find that, through a series of years, the best short-staple cotton will give us a larger profit per acre than Express or any other long-staple variety. Long-staple cottons, to be dependably profitable year after year, should be more of a staple product Or else, the premium over short-staple prices, to be paid for longer cotton, must be stabilized at a higher average value, and the extreme fluctuations in the amount of the premiums must be avoided. The latter problem is a commercial one which has been present for a long time, but on which the trade has made no impression. The other alternative, that of increasing the productiveness of longer cotton relative to short-staple cotton, is a task to be undertaken through seed selection.

In our experimental work we have attacked the problem in two different ways. In each case Express cotton, which has about the right length of staple for our needs, has been used as a basis for our work.

In speaking of several sorts of cotton I have already stated in each case that the new variety has descended from a single exceptional plant discovered in the field and isolated from the general population. That has been the mode of origin of practically all of the commercial varieties of cotton. This method has been employed with Express cotton and by selecting and testing numerous rather distinct types, several new strains of Express have been established and introduced. These new strains have shown improvement in one way or another over the original variety, but the advantage has not been sufficiently great and we have not been entirely satisfied with the results.

Still another method of improvement was open to us. The application of modern principles of heredity to practical work has helped to explain and has simplified many of the breeder's problems. On the basis of these principles we have gone at our cotton-breeding problems by crossing certain varieties, each separately possessing desirable qualities which were lacking in the other, but which we wished to combine in a new type. The Express variety, carrying a fair staple, has been used as one parent in several crosses.

As I have already stated, the chief defect with Express cotton is the low yield of lint. This low yield is due principally to a low percentage of lint. That is, the ratio of lint to seed cotton is low. As compared with short staple, the long-staple cottons invariably give a lower lint percentage, and this factor principally accounts for their relatively small yield.

But the Express variety possesses certain very valuable qualities. In addition to the length of staple, it is early, it fruits rapidly, producing many flowers and setting many bolls within a given period during the fruiting season. In this respect it is a good variety from the boll-weevil standpoint. The problem then was to produce a type with larger bolls and with a higher lint percentage. For the other parent certain short-staple varieties, having these qualities in a high degree as well as having other desirable characters, were crossed with Express. Subsequently we have isolated some very promising types from the mixed populations which resulted from the crosses. Through selection and testing, these hybrid strains have proved fixed in type and their merit, as compared with standard varieties, has been demonstrated. It has not been possible, of course, to achieve the ideal result of transferring, unaltered, the best qualities of each parent to the new type and of completely excluding the undesirable features. For instance, it will never perhaps be possible to develop by hybridization a type with very long staple and a high percentage of lint. But this correlation can be and in our experiments has been broken to some extent.

We have produced two or three types which have nearly, if not quite, as long lint as the Express parent, but with very much higher lint percentages, though not as high as the short-staple parent. What we have lost in lint percentage, as compared with the short parent, however, has been offset by a gain in the number of bolls. The lint yields of the new hybrid forms proved last year to be practically as good as the lint yield of the short-staple parent. At the same time, the length of staple of the longer new types is nearly, if not fully, as good as the Express parent and, naturally, worth several cents a pound more than a short staple.

When a certain combination of characters is desired in a new type the most favorable method for securing the combination is by hybridization of varieties which possess the characters separately. The surest method is to figure the problem out in advance on the basis of genetic principles and then work the plan. If we depend entirely on the selection of variations which appear in existing varieties, then we must depend on nature to produce the desired heritable variation and the selector must chance to discover it. The odds are too strong against the success of such an undertaking where the form sought is a radical departure from any available type already in existence. It is true that most of our commercial varieties have originated in this way. Most of them have been introduced by farmers. In the list of short-staple varieties, however, with few exceptions, the named varieties within any distinct group are not very different.

Most of the progress in the improvements of cotton in the future should be expected to come from specialists working systematically at the problem in State and Government institutions or working through private agencies.

The difficulties involved in the development of new varieties are numerous, and progress is necessarily slow. There is so much that we would like to have in a new variety of cotton that a great many factors must receive attention. For example, if we are working with long-staple cotton, the negative correlation between length of staple and percentage of lint which I have already mentioned is sure to complicate matters for the breeder. No matter whether we are working on long or short-staple cotton, a certain degree of resistance to plant diseases, particularly cotton wilt and boll-rot diseases, must be maintained Bolls must be large and relatively stormproof, but easily picked. The plant must flower rapidly and the bolls must develop and mature in a relatively short period, for boll-weevil conditions.

These are some of the qualities desired by the grower. Since cotton is grown to be spun, we must consider the qualities which interest the spinner, especially if we are dealing with long-staple cotton. In addition to the length of staple, the spinner wants his cotton to have certain other qualities. Any cotton should be as free from waste as possible. The finer grades should be able to produce a strong yarn, whatever the lint qualities may be on which strength of yarn depends. Long-staple cotton should show fineness and silkiness, and above all, the spinner tells us, it must be uniform.

Of all these qualities, length and uniformity of staple are the most tangible to the worker in the field and in the field laboratory. Uniformity of soil and purity of type, to which I shall refer later, are important qualities in influencing the regularity of the staple. Apart from these factors, uniformity in the length of fibers on the seed can be influenced by seed selection and should always receive the cotton breeder's attention

These and numerous other considerations, many of which are more or less antagonistic, complicate the task of developing superior new varieties of cotton. Repeated selection and testing are necessary. Time is an important element. It is impossible to get all the good things into one package, but with care and perseverance most of them, in the long run, can be crowded in.

One of our problems, when we are testing new strains, is the difficulty of obtaining a satisfactory estimate from the manufacturer's point of view, of the relative value of a new product. Until the new strain reaches the stage of quantity production and we are able to sell bale lots on the market we cannot determine definitely how much better or worse the new type is than a standard variety to which we may be comparing it in the field.

We can ascertain fairly early in the life of a new strain the relative yield and other qualities which determine its merit from the grower's point of view. On the basis of our field tests we may find that a certain new cotton can be depended on to produce, we may say, 5 or 10 per cent more or less lint per acre than a standard variety. If the yield is 5 per cent less, but the staple is longer and more uniform than the cotton commonly grown, then the important question is this: Can the grower depend on receiving from the trade as much as 5 per cent or more in excess of the price of common cotton to pay him for switching to the new variety? If not, it is certain that the grower will never adopt the new variety, however excellent the character of

the lint, because the planter can be depended on, naturally, to grow the kind of cotton which will pay him best.

It is important, therefore, to the cotton breeder to have his samples carefully valued early in the testing of a new strain, so that he may not waste his time unnecessarily long on unprofitable types.

Spinning tests which have been run for us on small lots of cottons, through the courtesy of certain mills, have not been entirely satisfactory, because they have merely given certain data, which are not particularly intelligible to the agriculturist. They have failed to supply the final complete estimate of relative merit.

Likewise the valuations given on samples submitted to cotton factors or brokers are not always satisfactory, because they may not have had a recent sale of the kind of cotton in question, and may not be in a position to give the desired information. Furthermore, the cotton classer bases his estimate of worth mainly on grade and staple, and does not consider to any great extent, because they are difficult to detect, the finer points of character which may affect spinning value.

Finally, the question of maintaining a supply of pure seed of superior varieties is of utmost importance. This is not strictly a plant-breeding proposition, because the origination of something new is not involved. It is a very vital and practical question, however, of almost equal importance with the problems of developing better varieties.

When a variety becomes widely cultivated the seed stock of the average grower is sure to become contaminated. This contamination results partly from cross pollination effected by insects, but the principal source of trouble is the mechanical mixing of seed and of seed cotton at public ginneries. There is little hope of relief from this very frequent mixing of seed stocks, and the most satisfactory remedy is the frequent renewal of the seed stock by the grower after his cotton begins to deteriorate.

There must be a source of pure seed to which the grower may turn when in need of a new supply. Seed selection is useful in maintaining the purity of planting seed stocks. Either the deteriorated stock must be displaced by a new improved strain if one superior to the variety in use has been developed, or else a pure stock of the old variety must be obtained.

In this connection, well organized and well managed seed farms can perform and to some extent are performing a very valuable service. It is up to the seed farms to make available adequate supplies of pure seed which will be needed by farmers from time to time. These seed must either be of new improved varieties which have been developed recently or, in the absence of such new productions, they must be pure uniform stocks of satisfactory older varieties. This purity can be maintained by seed selection and isolation from other cottons, together with scrupulous care in ginning. Properly equipped seed farms with trained and experienced specialists and with adequate facilities for experimental work are the proper agencies to render this service. The experiment stations are doing useful work in research and in developing new varities, but they cannot be expected to supply more than a very limited amount of seed. The average farmer is not equipped by training nor with facilities for constantly producing an abundant supply of dependable seed.

I think I have pointed out to you some of the valuable service which seed selection has rendered to the cotton industry. I believe I may safely predict that from this time on still more substantial benefits may be expected from this class of work.

Cotton Insurance.

By MILTON DARGAN, Manager Royal Insurance Co. of Liverpool, Atlanta, Ga.

[Two particular subjects on cotton insurance discussed by Mr. Dargan are the cost of such insurance and the possibilities of lowering it, and to what extent cotton interests could aid in bringing about this result. The margin of profit is so small on cotton insurance that any present reduction is not warranted, he said. About $10,000,000 to $12,000,000 is annually paid in premiums for insurance protection on cotton. Reduction of losses is pointed out as the only way to materially lower rates, and it is suggested that this can be brought about by limiting congestion, fireproof construction and by better fire protection of storage facilities and plants.—Editor Manufacturers Record.]

Realizing that your members are well informed as to the various methods by which cotton may be insured, and that a detailed, elementary discussion of this phase of my subject would be quite out of place, I am, therefore, led to a consideration of the more general aspects of insurance and of our relations with our patrons and with cotton interests generally. It seems necessary, however, to refer to the various classes of insurance required, in order that we may have this clearly before us in our consideration of the general subject. I am sure that the following subdivisions will constitute a complete classification of the risks to be covered, namely:

1st. In or near gins, or on plantations, whether it be lint or baled cotton.

2d. In the local warehouse or yard in the smaller towns. Generally, these are comparatively small accumulations.

3d. In transit to interior points of concentration.

4th. In compresses or in warehouses of considerable capacity at interior points of concentration. Usually this risk is that of the shipper, of the railway under its bills of lading while in the compress, or of the compress company itself, if it assumes the railway or storage risk.

5th. In transit to ports or to mill centers, in the United States or Canada, and in warehouses after arrival, and

6th. At the ports, either in large warehouses or compresses, or at the port terminals.

The fire risk ashore ends when the cotton is loaded aboard ship for foreign destination. Fire insurance companies are prepared to furnish indemnity under all the foregoing circumstances by means of policies or certificates covering the owners or their bankers in specifically named locations, on which the premium is to be paid in advance, or for the railway company while the cotton is at their risk in transit, or for buyers or shippers who purchase over an extended territory, the railway and buyers' risk being generally covered under open policies attaching wherever the cotton may be. Under these open covers the assured furnishes daily reports of liability, and the premium is calculated on the daily average on hand, provision being made, however, for a minimum premium. The companies writing the marine insurance furnish the waterborne cover, their policies attaching to final destination.

There seems, therefore, to be no legitimate demand for insurance which cannot be supplied readily under the present system, which system is the outgrowth of all past experience.

Difficulty in procuring sufficient insurance at congested points, due to the gradual increase in the number of bales stored subject to one fire (which condition became more and more acute during the 10 or 15 years preceding the war) arose even at the low price of cotton then prevailing, but the companies increased their facilities, largely through foreign treaties of reinsurance, and thus relieved the pressure.

I will confine myself to two subjects:

1st. The cost of insurance and the possibility of lowering it, and if we find that it cannot be lowered by the underwriters under present conditions.

2d. How can the cost be lowered in future, and how can cotton interests lend their aid in accomplishing this result?

The experience of the companies on cotton has not been altogether favorable for some time. For the past two years the business has shown marked improvement, but if we take the record for the past 15 years, the margin of profit is so small as not to warrant any present reduction, whatever we may find ourselves able to do if this good record continues. I am not trying to prove this to you by statistics, but this statement of fact can be demonstrated to anyone who may be interested by records, which are accessible to me, of those companies that co-operate in our organ-

izations through which statistics are available, and those outside are such a small factor in the business as to render it unlikely that their results would seriously affect the totals.

The cost of insurance is not of special interest to cotton buyers, provided they are assured that their competitors are not obtaining an advantage in this respect, but it is of importance to the producer, since I think it is generally admitted that he must bear all costs attaching to cotton as affecting the price he receives for it. Unnecessary cost is, however, more a matter of public concern than of concern to any individual.

The value of the cotton crop is approximately $1,500,000,000, and while the amount of the premiums paid for fire insurance is not available as a whole, the best-informed underwriters estimate it to be about $10,000,000 to $12,000,000. Approximately 75 cents per $100 of value is therefore the annual insurance charge. Suppose it were possible, and I believe it is, to reduce this, even if not more than 20 cents per $100 of value. That would mean $3,000,000 per annum on the basis of a crop worth $1,500,000,000. Certainly this would seem to be worth while, and if it is, and if I have sufficiently indicated to you why the insurance companies cannot on present experience make the reduction out of hand, we come to the second subject, since the question naturally arises, "How can rates be lowered if the business is not already more profitable to the companies than seems to be justified?" The answer is simple—"reduction of losses." This, from every standpoint—saving to the producer, removal of danger of destruction to other property, lessening the adverse effect on the Commonwealth of a property loss which is not replaced by insurance and the conservation of cotton which is needed by the world—is a task worthy of our best co-operative methods. The saving of $3,000,000 or more per annum in insurance charges is but the least of these benefits.

When I suggest the desirability of aid from cotton interests by co-operation, the natural query will be, "How can this be brought about?"

I can best answer this by showing what has already been done. An organization of fire insurance companies became necessary because of the complaints of the owners of compresses and warehouses as to the conflicting suggestions of individual company inspectors looking to desired improvements. They wished to deal with one inspector or one architect or engineer representing all insurance interests. They were manifestly correct, and the organization was formed and immediately set for itself the task of improving risks. It met with opposition from a few companies who contributed nothing of brains to solve the difficulties nor of money to employ expert advisers. They continually offered more liberal terms in an effort to get the business, not apparently realizing that they would suffer loss under existing conditions. Fortunately, but few of the important cotton merchants forsook their older and longer tried friends, and we are glad to say that they came to believe that which we already knew, that unless they helped to better conditions, no permanent improvement could be brought about, and therefore the rates, even of cut-rate companies, would necessarily advance. The cotton interests similarly found in their ranks those who were willing to grasp the shadow, not realizing that they were losing the substance. Nevertheless, the organization referred to conferred with the marine companies, the warehousmen, owners of compresses, wharf companies and railroads, and, in short, with all interests that recognized the need of the hour, and the result has been that compresses and warehouses were graded on their merits and rated accordingly. The owners, finding it to their interest in many ways, including a reduction in insurance rates, subdivided them by means of firewalls into compartments holding not over 5000 bales, and many warehouses were subdivided into compartments of far less capacity. The warehouses were better built, many of them of fireproof construction and equipped with automatic sprinklers, for which the rates became nominal. The South Memphis warehouses, the Candler warehouse in Atlanta, the New Moody and Kempner warehouses at Galveston, the Dock Board warehouses at New Orleans, two or three of similar construction at Houston, one at Savannah, two at Augusta, and many others, may be cited as illustrations of the result of co-operation between all interests, followed by materially lowered insurance rates. Wharf and railway properties have undergone similar improvement and present no possibilities of a conflagration such as those which have occurred.

The Government has recently adopted a standard for bonded cotton warehouses and has passed an act to govern their operation. Many of the States have passed warehouse acts looking to better construction and administration, but some of them seem to lack somewhat in provisions that would enable the State authorities to bring them up to the Government standard. Large interests are now engaged in the construction or acquisition of warehouses at all important points in the South.

This is but a brief history of the co-operative efforts that have but fairly begun. The result is apparent in the decreased losses of the past two years. Let it continue, and rates must come down. Whatever may be said by those not informed, rates of insurance companies have always risen or fallen with the rise or fall of the losses. No agreement to maintain rates can stand against this natural law of trade, nor do we wish it. We prefer a profit on the smaller volume of good business produced by low rates to a loss on a large volume of bad business at high rates, just as each of you would in your own business. Whilst the larger income reduces the overhead expense, this does not always make good the loss if the business be bad.

I stated that there was a possibility of saving $3,000,000 per annum if the average rate be reduced 20 cents per $100 of value. It may be reduced still further, but if we assume that only $3,000,000 can be saved, that would represent at 5 per cent the annual interest on $60,000,000. From the standpoint of interest earnings alone, then, it would seem that the owners of cotton properties could afford to spend $60,000,000 in order to effect such a saving. But the conservation of property, rather than any possible saving in insurance charges, is the stronger argument. Our Government wants it, we all want it, excepting alone the man who draws profit from misfortune, and he is not to be considered.

May I bespeak the continued and increased co-operation of each of you with the underwriters in order to bring about better conditions of handling the crop? Let's improve the gin, the small warehouse, the large warehouse, the compress, the railroad and steamship terminals. Let's limit the congestion in so far as it can be done without increasing too much the cost of handling. Let's have better baling of cotton, less exposure by sparks and to weather, less waste. In short, there is no line of endeavor, looking to conservation of cotton and a better and more friendly attitude between the cotton interests and the underwriters, to which we will not lend our very strongest sympathy.

In our general business, as with cotton, our greatest efforts are exerted in reducing the fire waste—a Government duty, it seems to me, but a duty that has been left largely to underwriters until within the past few years. The States are now, most of them, active in assisting us.

In laying our rates we offer strong inducements for improving risks and lessening hazards. We maintain inspection bureaus to search for and point out defects, engineering departments to suggest standards for construction and equipment, and scientific research departments to discover causes of fires in processes of manufacture and in the storage of property, and in the testing of materials and protective devices. The organization maintained by us was tendered in its entirety, with the service of all our special agents, to the Government when war was declared, was accepted by them, and we have their testimony as to the valuable work done without cost to the Govrenment. We do not "play a lone hand," but I fear we have been too modest and have not let the business community know it as well as we do. I am therefore now telling you this that each of you, and every property-holder, may have the benefit of our counsel as never before. A letter addressed to the National Board of Fire Underwriters, in New York, will receive instant attention and place you in touch with the particular department with which you should consult.

I would suggest that as we have set up our committees to act with cotton conferences, you will set up your committees to act with insurance conferences, that wherever, in this country or in the larger field, we may need each other, we may receive from you, in similar measure, that full co-operation which we here promise for ourselves. Our mutual efforts must be crowned with a success that will not be selfish, but will prove beneficial to every interest.

The Compression of Cotton

By W. D. NESBITT, President, Warrant Warehouse Co., Birmingham, Ala.

[Everyone agrees that the American system of handling and baling cotton, from the field to the mill, is wasteful to the extreme. Though Mr. Nesbitt concedes the importance of high density cotton baling to reduce shipping and cargo space, he lays particular stress upon the proper covering of the bales. He states that the use of heavy jute bagging and ties and the tearing of the cover through handling and cutting of samples are responsible for the practice of deducting 6 per cent for tare, and that this fixed rule has done more to prevent improvement in baling and compression than any other one factor. Mr. Nesbitt says that what is essential now is that while compressing bales to a greater density, we should get away from the wasteful slipshod methods of covering and handling by substituting at the time of compressing, clean, uncut, light covering.—Editor Manufacturers Record.]

The primary object of cotton compression is to conserve shipping space and reduce transportation costs. Incidentally, it conserves storage space, and when properly and scientifically done, it improves the appearance of the packages, reduces fire and weather hazards and prevents much waste of package contents.

The trade can best and most quickly bring about maximum efficiencies in baling, compressing and marketing by three changes:

1. Buy net lint instead of gross weight of bales. Different processes will be encouraged to standardize on the best and least weighty covering.

2. Recognize in transportation rates the saving to carriers in handling uniform, dense and well-covered bales. Freight rates based on the deadly average cost make efficiency lend its ability to carry carelessness and indifference.

3. Recognize in insurance rates the savings to insurance companies from fire and weather damages consequent upon handling compact bales with thoroughly covered or calendered surfaces. This saving is enormous as compared with their past losses when handling loose and exposed lint that searches for and combines with dirt and water and at every stopping place beckons to fire to join it in savage conflagration.

What is true of the cotton bale largely applies to packages of various other bulky commodities, such as cotton-hull fiber, wool, hay, rags, waste paper, leather and tin scrap, etc.

The world war of 1914-18 has taught us the use of many substances and waste products previously considered valueless, and necessity has compelled us to exercise ingenuity in the more efficient use of facilities and the value of applying new methods to old problems.

Under compulsion and for our governments, we learned and profitably acted.

Are we now carelessly and lazily to slip back into wasteful ways, or are we not rather to apply these lessons and methods to the profitable upbuilding of our individual undertakings and for the increase and benefit of our national and international commerce?

After the field cost of producing cotton, the cost of baling, transporting and marketing is the least understood and poorest organized of any department of the great cloth industry, and offers the greatest financial return for systematic and intelligent standardization. Here, by the more efficient use of facilities and elimination of waste, is the great opportunity to reduce the cotton clothing bill, and fundamental in it is the the careful and thoughtful preparation of the 20,000,000 packages which, across the continents and seas, have to travel, with many transfers by one carrier to another, from cotton field to fiber factory.

The loafing, half-loaded or idle freight car, as the light-loaded or ship in ballast, adds its burden to the world's total transportation cost, and to the extent that all cars and all ships move promptly with full loads, is the transportation cost bill of the world reduced.

Cotton as it comes unbaled from the gin is in the form most suitable for the spindle, but in order to economically reach the distant factory it must reduce its volume to the smallest compass possible not injurious to the staple, even though the factory has later to reverse the process and with openers again expand the bulk before delivery to the spindles.

Invention answered demand, and at the ports steam compressors began to appear. These machines reduced the bulk and enabled the ships to double their loads. The railroads then recognizing the advantage to them of having the reduction of bulk made inland before their haul, rather than at the ports, encouraged the building of compressors, and in some instances built them themselves at large interior shipping points. The ships still paid for the compression, but the railroads shared the benefit by loading in their cars 40 to 50 bales instead of 20 to 25, as was the load when forwarded uncompressed.

Gradually interior compression extended and became general, the steamships requiring cotton for shipment to be compressed to an average density of 22½ pounds per cubic foot. Then for shipments to American mills at distances exceeding approximately 200 miles, as well as to ports, the custom was established of compressing at interior points, the railroads making a difference in the freight rate between compressed and uncompressed cotton sufficient to pay the cost of compression. This has resulted in compression at the ports of only that cotton which originates in nearby territory and such development of interior compression and concentrating points throughout the cotton territory that the number has finally reached a total of some 300.

The exposure to weather and rough handling of the bales on the plantations, river banks, railroad platforms and terminals early made it necessary to use a very strong, heavy and ventilated covering, and jute bagging came to be almost universally adopted. The tearing of the covering through handling, and its frequent cutting for samples made it necessary at compresses and terminals to mend and patch the covers.

Including the iron bands, jute covering and patches, the total weight of covering was about 30 pounds per bale of 500 pounds gross, and the Liverpool custom was established of deducting 6 per cent for tare. This fixed rule of the trade has done more to prevent improvement in baling and compressing than any other one thing.

With the exception of the round bale undertaking between 1890 and 1900 and some high density experiments about 1907, no real improvements in baling were accomplished until the necessities of war made closer packing of bales imperative, and then the spinning of American cotton packed to 32 to 36 pounds density disproved to spinners their idea that such densities, when properly accomplished, were injurious to the fiber. The step from 10 to 22 pounds density was accompanied by the same fears and objections in 1860-80 as have followed the step from 22 to 32 pounds in 1918.

The values and economies of the bales of 32 pounds minimum density have been established and are accepted, and such packing, when bales are intended for long shipment or long storage, will soon be universally required.

What is essential now is that while making this density improvement we get away from the slipshod methods of covering and handling and save the dropping waste from packages that has for years daily cried out to a drowsy financial and trade conscience.

The factory cannot spin the bale covering, and the cotton producer does not have it and must buy it. The producer has lint cotton to sell, and that is what the spinner wants to buy and is willing to pay for. All costs of purchasing, applying and transporting covering is an expense borne by the producer and consumer, and to the extent that it is unnecessary is a waste that decreases the net price to the producer and increases the cost to the ultimate consumer.

The character and amount of covering required to protect bales under the old conditions of handling, storing and transporting are not now always necessary for proper protection, but are required only on account of the 6 per cent rule of the trade.

The jute bagging now covering bales is stripped at the mills and is shipped back, even from across seas, to be patched and reused on succeeding cotton crops until it finally wears itself out in travel and eats up its value in freight tolls.

It is entirely possible, with an agreement between seller and

buyer, to deduct actual tare instead of 6 per cent and to forward the bales from many compression and concentration points completely and satisfactorily covered with a total tare, including bands, of 13 pounds, instead of 30 pounds per bale. This is accomplished at a cost of from 3 to 4 cents per bale by removing the jute bagging at the time of compression and substituting clean, uncut, light covering and immediately redelivering to the cotton producer the jute sides for covering his following bales. This saves on each bale the freight on 17 pounds of unnecessary covering.

With the use of the new hydro-electric compressors, where only 450 total tons pressure is applied, instead of 2000 to 2500 tons used in all the old processes, the lighter covering is substituted without danger of tearing the cloth or of cutting the staple, as sometimes occurs with green or damp fiber when subjected to the old tremendous pressures where densities exceeding 60 pounds per cubic foot in the jaws of the press during the reducing process are necessary in order to secure and finally retain the shipping density of 22 to 32 pounds.

With American exports of 8,000,000 bales and a freight rate of $2 per hundredweight from point of origin on this side to destination on the other, the saving in freight on 17 pounds of unnecessary covering is 34 cents per bale, or a total of $2,720,000 per annum.

The fact that these bales are neat and compact removes the criticism long justly directed at the appearance of the American bale. The fact that on all surfaces they are compact or are completely covered absolutely eliminates the past fearful waste from pulling or dropping of fiber and reduces to a minimum the fire hazard.

Twenty-six thousand cotton gins scattered throughout the cotton belt over an area of some 1,500,000 square miles, engaged in separating the seed and lint of a 13,000,000-bale cotton crop, had an average of 500 bales each per season, and the annual income from tolls at $2 per bale of $1000. The great majority could not then and cannot now afford to supply any but the simplest machinery and cheapest labor, and therefore it was and is practically impossible, except perhaps by slow stages of evolution and elimination, from the many small to the greatly fewer, but larger plants, to profitably introduce at the gin plants proper complete and most efficient baling machinery.

In America, unlike the system in Egypt and China, we gin largely at the cotton field and assemble at rehandling, sorting and reduction plants the lint cotton and cottonseed separately. Whether better or worse than the Eastern method of assembling, the seed cotton in large quantities at ginning centers, it is here the long-established method, and millions of dollars in ginning, compressing, warehousing and other plants are invested on this basis. Changes, even if for the better, will come slowly and only by evolution. Our present task is to improve to the maximum of efficiency our existing facilities.

The American cotton crop in characteristics varies widely from season to season; varies with different pickings of the same season, and even pickings of identical dates vary from section to section, and even from farm to farm in the same section, as there is a variation in seed, soil, cultural and picking methods. These variations, sometimes slight, sometimes great, apply to the length and strength of staple, to discolorations, shading by slight graduations from whites into grays, blues, slates, pinks, reds and rusties; to foreign matter, consisting of leaves, etc., in large pieces of considerable quantities or small amounts of peppery particles.

A variation of even one-thirty-second of an inch in length of staple makes a bale unsatisfactory to certain spinners, and while one spinner can use very slightly pink or blue or spotted cotton, such bales to another are hurtful to his product and should be eliminated from his shipments.

Under our American system of concentrating the bales of lint at central grading and compression points, the expert cotton graders have the opportunity of fully examining each bale and carefully selecting for each user just the bales that best suit his particular product. Such careful re-examination and selection brings best results to the spinners, and enables the producer and seller to secure the best price from the satisfied user of his particular character of cotton.

While there is some expense to this concentration and compressing, it is a trade necessity, and more than pays its cost in the saving and satisfaction to the spinner and increased price brought to the producer and seller.

Man, since he first undertook to bear burdens, has, for convenience, assembled articles into bundles and has striven to make these bundles as compact as possible. The science of bulk reduction and of conserving shipping and storage space has now recruited students from the ranks of war experience. Let us in our industry encourage their studies and profit by their discoveries.

Transportation of Cotton by Rail

By W. S. Turner, Secretary Arkansas Cotton Trade Association, Little Rock, Ark.

[Admitting that there should be a governing power placed over the railroads and paying due respect to the work of the Interstate Commerce Commission, and to the work of the railroads during the transportation crisis, Mr. Turner nevertheless believes that with a better ordered and better defined control of the railroads there is no necessity for other than private management. The stupendous volume of cotton handled by rail is seen in the statement that, based on a 12,000,000-bale cotton crop, to transport this, including the seed, requires about 1,000,000 carload units. Mr. Turner thinks that the present system of handling cotton will not admit of much change, and he predicts that the high density bale idea is doomed, basing his opinion on the fact that when a minimum load of 37,500 pounds of condensed cotton is carried on a standard 36-foot box car, lumber loaded on the same type of car has a minimum of only 34,000 pounds. Mr. Turner asks that all dealers in cotton refuse to buy on country ladings unless billing reference is shown thereon. He also says a system of marking is needed which will readily identify the bale from the country station to the compress, and from compress to domestic destination, and to foreign port.—Editor Manufacturers Record.]

I wish at once to indicate my attitude toward the railroads. I believe it is time to stop ridicule, adverse criticism and, perhaps, even abuse of the railroads, and put into practice the all-important principle of co-operation, and in this way lend a hand toward securing for our business and our personal comforts those things which we have been trying to secure by opposition and antagonism. I believe the time has come when we should refuse to return to our State Legislatures and to our National Congress men whose principal basis for re-election is because of that which they "did" to the railroads. I believe that we should especially discourage our State Legislatures from indulging in regulatory laws governing transportation, when the effect of such laws directly interferes with interstate traffic. Ninety per cent of our traffic is interstate. The service on this, however, is practically all subject to State laws, and not infrequently to municipal regulations. It is hard to conceive how any business can be a success which has 48 regulatory bodies making rules or laws beneficially or adversely bearing on the welfare of the enterprise. Most assuredly do we believe that the Interstate Commerce Commission should have their powers enlarged. They should have power to initiate rates and rules of traffic and should have power over minimum as well as maximum rates.

With a better ordered and better defined control of the railroads there is no necessity for other than private management. The records of transportation, whether for success or failure, during the war period is no criterion for times of peace. Reference to such records may be unfair to the Government and to the whole railroad crowd. The burden which was placed on transportation during the war period was simply beyond its capacity to accommodate, and, like a stream during a freshet, it overflowed.

Based on a 12,000,000-bale cotton crop, to transport this, including, with the lint, the seed, requires about 1,000,000 carload units. In the transportation of cotton by rail there are two principal moves—from the country station to the compress and from

the compress to the port if for export, or to final destination if domestic. In the first movement the cotton is flat or uncompressed, and weighs about 11¾ pounds to the cubic foot. In the second move it has been compressed to a density of 22½ pounds or more to the cubic foot if standard, or 33 pounds or more to the cubic foot if high densitied. This has reference only to the standard bale of cotton, weighing about 500 pounds, 27 inches wide, 54 inches long, and, before being compressed, will average about 50 inches high.

Transportation of cotton by rail embraces much more than the two movements just referred to. Warehousing at point of origin and at the transit point is a distinctive feature, and because of the extraordinary damage caused by exposure during the 1918-19 season, this is now receiving especial attention. Speaking for Arkansas, the compresses of our State now have an undershed capacity for uncompressed cotton equal to two-fifths of a normal crop, and I believe that this is about representative of the Southwestern region, and perhaps of the entire South. Our compress system has a faculty of rising to emergencies, and, in regard to insufficient warehouse capacity, we wish to offer the same advice that the nursery poet offered to Little Bo-Peep.

Cotton rates and rules are predicated almost entirely on the single-bale movement. The one principal exception is the carload rate to the Pacific coast. It requires a well-ordered system to convert cotton from the condition at the gin to the requirements for the market. The two transportation terms used in handling cotton are "floating" and "forwarding;" floating, from the gin point to concentration or compress point, and forwarding, from the latter point to destination. At the concentration point cotton is sampled and typed, graded and classed, compressed and marked, and is financed.

Cotton is floated on a cotton bill of lading, which lading is taken up by the cotton dealer's banker at concentration point and is held by the banker as collateral. When the carriers deliver the cotton to the compress they take up a compress receipt or ticket for each bale of cotton delivered and deliver such tickets to the banker and take up the country bill of lading. The banker now holds the compress receipts or tickets as collateral. In the meantime the dealer, who has been kept advised, proceeds to select into even running grades the cotton for the market, and then directs the compress to press and mark and load into cars the number of bales called for in the spinner's order. When the loading is complete, on a certificate to this effect issued by the carrier's inspector in charge at the compress, the railroad issues the forwarding bill of lading to the dealer, who takes same to the banker, who, in turn, delivers to him an equal number of compress tickets as there are bales of cotton covered by the bill of lading, and the dealer delivers these tickets back to the compress for cancellation and the satisfying of records. The banker makes draft on the spinner or his agent, the dealer is credited with the proceeds, and all records are closed at the compress point.

To some, who give thought to the present system of handling cotton, our methods are primitive. Perhaps so, but in this respect it is a good deal like the good old religion which was good enough for our fathers and is good enough for me. Here is a business which will not admit of much change. Men meet in conventions, the purpose of which is to arrange reforms in the appearance, dimensions and style of the bale of cotton. The reform spirit spreads and obtains over the entire land. It is taken up by correspondence, is advocated through the public print and is acclaimed from the rostrum. We feel our importance expand as we proclaim that which we have done toward modernization of the bale of cotton, and then the new season comes around and along comes the same old ragged, irregular-sized bale of King Cotton, and we all bow in sentimental respect, and in our hearts are glad that it is so. The King looks badly; long live the King. Improved methods of seed selection and of farming are good. Methods of marketing admit occasional reforms, but the actual handling of the bale of cotton will not admit many changes, and we wish to predict that the high densitied bale idea is doomed, except perhaps for export, and we are not convinced about that. When we are able to load 37,500 pounds, as a minimum, of standard condensed cotton in a standard 36-foot box car, and lumber loading has a minimum of but 34,000 pounds, there is but little reason why, from a transportation necessity, there should be a call for high density.

The actual transportation service directed to cotton may admit of some improvement. Railroads will not execute ladings on compressed cotton until loading into the car and car numbers and initials are shown in the ladings. In the Southwestern region the cotton must have been examined by an accredited agent of the Western Weighing and Inspection Bureau, and his certificate is also necessary before ladings will be issued. These are modern reforms, and are good. We are now seeking a ruling from the railroads to the effect that they will not issue ladings on cotton at country stations for compress or concentration points unless the cotton is loaded into the car and car number or billing reference is shown in the bill of lading. Anticipating a ruling to this effect, we would ask all dealers in cotton to refuse to buy on country ladings unless billing reference is shown therein, and in this respect follow a trading rule now enforced in certain districts.

There has always been agitation bearing on the marking of cotton, but up until this season nothing definite has been determined. It is not a case of the shippers and carriers disagreeing, but all parties interested are trying to find some suitable, legible, permanent and reasonably inexpensive mark. We need a system of marking which will readily identify the bale from country station to compress, from compress to domestic destination or port, and from port to foreign destination. Here is a chance for someone to immortalize himself with the cotton industry, and besides, as Colonel Sellers would have said it, "there's millions in it" to the fellow who will get a copyright on an acceptable plan.

We recently asked the Southwestern regional director for trainload service on our cotton, intact and continuous movement from point of origin or convenient assembling point up to the farthermost point toward which the train can be so handled, and we now have this service at our disposal. At times of congestion of traffic this service should be invaluable. We tried this out on a shipment of 29,000 bales from one of our presses to an Eastern destination, and had record of delivery of the last car of the movement before we could have secured delivery of the first car of the consignment under the single-car plan.

Just a word about rates, and I am through. Rates on cotton are high, but I believe our attitude toward rates should be to favor higher rather than lower rates, just so the parity is maintained. We believe that our charges for transportation should all be expressed in one through rate, and that this should be high enough to make our cotton traffic the most attractive of all commodities to the carriers, and they should then yield us a service consistent with the charge. There is no doubt but that freight rates should be higher if we are to get the high character of service necessary to the economical conduct of our business.

On railroad coupon tickets there is an admonition "void if detached," and this is the relationship which commercial development sustains toward transportation, "void if detached." Next in importance to production is transportation, consistent with the adequacy of which are values to be determined of the thing to be transported. Distribution rectifies the law of supply and demand, therefore prices and values are governed almost entirely by transportation. The higher the character of the transportation service, the better the price of the thing transported. We recently read an article in which the author desperately tried to reconcile "cheap" and "adequate" transportation. His effort was necessarily a failure, because, in the language of the man at the circus, "there ain't no such animal."

I believe the time has come when we should cease being interested in objects outside the car window when the ticket-taker comes around, and maintain an attitude toward the carrier of being willing and ready to pay for the transportation which we need and demand.

The Southern cotton grower, whether he be white or black; the small tenant working a few acres, as well as the great land owner cultivating many acres, should have just as good a chance to live comfortably in a house fit for habitation and with modern improvements in it as the mechanic in the cities of the South, or in the cities of the North and West, or as the farmer in the wheat and corn regions of the West.

Producing Better Cotton by Better Farming

By BRADFORD KNAPP, Chief, Office of Extension Work South, States Relations Service, United States Department of Agriculture, Washington, D. C.

[Ultimate success in the improvement of the cotton crop through better farming practices cannot be achieved, Mr. Knapp says, until the whole financial and economic situation is changed. He declares that a system founded upon an income from cotton alone must be a failure. Bankers and the credit merchants of the South must refuse to continue to loan on the basis of cotton acreage alone and turn to intelligent financing of a progressive agriculture. Also the farmers must learn to know something of the grade and staple of their cotton if they want to receive the proper benefit from market conditions. Mr. Knapp very justly laments the unpardonable use of the labor of women and children in the raising of cotton, so that the world can continue to get it cheap, and asks that may God forgive those who want it at the price of the labor of women and children in the cotton fields. Cotton enough to supply the world can be produced without so much labor by women. To compete with the world in the production of cotton requires brains, a balanced system of farming which produces food and feed, and a stop to the exploitation of labor. Cotton farmers have made money in the last year or two, though, as explained by Mr. Knapp, it is not because they received high prices for cotton, but because they have learned to grow more food and feedstuffs, consequently they have not been compelled to spend so much outside for these products, for, said he, the farmer of the South cannot buy any more at the present price received for cotton than he could when cotton was worth but 10 cents a pound. He outlines a safe system of farming by the production on the land of food for the people and enough for sale as far as possible, and by the maintenance and improvement of the fertility of the soil, and stressed the fact that those interested in the cotton crop should appreciate that the farmer as much as any other business man is entitled to the "cost of production plus a reasonable profit."—Editor Manufacturers Record.]

The improving of the cotton crop by cultural methods, good farm practices and the selection of better varieties is a scientific problem almost as simple as adding two and two together. After long years of study and effort in this direction I came to the conclusion, some years ago, that the problem of improving the cotton crop was so interwoven with the whole system of farming in the Southern Sates and with the economic conditions surrounding the cotton farmer, that no adequate presentation of the subject could or should ever be made without recognizing all of the surrounding conditions. Improvement by better farming ought to mean a better income for the farmer. When more and better cotton simply reduces the price, the farmer fails to see the improvement. The importance of this occasion demands that I beg your indulgence to present briefly the whole financial and economic situation which must needs be changed before we can hope for ultimate success in the improvement of the cotton crop through better farm practices.

The cotton system in the South was the outgrowth of the years following the War between the States, when the South was poor and without credit while the world wanted cotton. In the years that followed a large proportion of the entire crop was grown on a credit basis depending upon the acreage in cotton. Farmers bought their food, a great deal of the feed for their livestock, their fertilizers, and practically all of their other supplies through the store. Necessarily the credit prices were high, as they were forced to pay what it cost the Northern farmers to grow their food and feed, the transportation charges, and cost of distribution to them. The interest rate on money in the cotton territory has always been higher than in most other sections of the United States, and the retail price of meat, flour and other necessities of life have generally ruled higher than up North. In many sections of the cotton territory 80 per cent of all cultivated land was planted to cotton. When the coton crop failed the people were in poverty and distress; when the cotton crop was bountiful and the market failed, they were likewise in poverty and distress. The only way in the world you can improve a one-crop system is to produce more of that one crop. When you do that the markets of the world are glutted, the price drops and your effort to improve brings its own disaster. On the other hand, as your fertility decreases or unfavorable weather conditions or crop pests cut off the production of the crop, the price rises, yet you find that you have little, and again you are in distress. Facing either way you please, you are in a dilemma if your agriculture is founded upon the shifting sands of a one-crop system and not upon the rock foundation of a self-supporting agriculture.

When I speak of a one-crop system of agriculture, please do not misunderstand me. I know full well that the South has always produced a certain amount of corn, and other products, but, in general, it has had only one crop out of which the farmer obtained a cash income, only one product from the farm for sale in the markets of the world.

It is the height of wisdom for the consumers, the merchants, the manufacturers of cotton and all those who deal with it from the time it leaves the hands of the farmer, to understand why a system founded upon an income from cotton alone must be a failure. These reasons are:

1. It is unsafe economically because it depends upon crop conditions and market conditions. War, weather conditions, insect pests, over-production, seasonal conditions, etc., make the income highly speculative and uncertain.

2. No one-crop system of agriculture ever maintained soil fertility. Humus, nitrogen and other elements of the soil necessary to plant growth are taken out of it by continuous cropping to one crop. Any system of agriculture which permanently reduces the productive power of the soil is a serious economic mistake. If there were no other reason under the sun for reconstructing the agriculture of the South upon a broader basis, this reason alone would be ample.

3. An all-cotton system of agriculture fails to take livestock into account. Meat, and especially milk, are necessary for the sustaining of the life and the health of the people. Livestock utilizes the waste products of the farm and returns a profit from lands otherwise unproductive. By the feeding of livestock a large proportion of the elements of plant food may be retained upon the land. No crop responds better to the use of manure than does the cotton crop.

4. An all-cotton system is uneconomic, because under it no plan of farm management can be devised which will give a maximum yearly use of tools, machinery, equipment and labor. Farming is the intelligent application of capital, labor, tools and equipment to the annual business of the farm. The one-crop system compels the farmer to have long periods of idleness for both machinery and labor, while a more highly diversified agriculture not only enables him to build up soil fertility, but increases the annual production per man and the income of the family at home. Thrift and industry, these two things which make agriculture the most wonderful industry in the world, are found to a greater degree in those sections which have the most highly diversified agriculture.

5. Under an all-cotton system of agriculture the return from the labor comes but once a year, whereas under a more highly diversified system the returns come in a number of times during the year. An income from eggs, butter, cheese, poultry, the orchard, the garden, livestock and grain, as well as cotton, gives many opportunities for converting labor and the fertility of the soil into cash. With nothing to sell but cotton we turn our capial over but once in a year.

6. And lastly, most important of all, an all-cotton system limits knowledge, narrows opportunity, fosters commercialized farming, and fails to produce a real rural life.

The fundamental principles laid down here constitute the history of other sections as well as of the South. There is no opportunity to escape from these conclusions.

But there is another thing which you men, who are at the other end of this thing from the producer, must face and face squarely, and that is the marketing. The general marketing system has improved considerably in some places in the last few years, but there is still room for great improvement. Not many

years ago farmers, as a rule, knew nothing about the grade and staple of their cotton. A large majority of them are still in the same condition. Unfortunately, the trade, buyers, etc., have opposed the idea of teaching farmers these things. I suppose there will be men in this convention who will denly that, but every man of broad experience and observation knows that it is true, as a rule. When a Government grader from the Bureau of Markets, in putting on a demonstration, tells the farmer what is the grade of his cotton and the length of the staple, not once, but hundreds of times the local buyer has sneered at it and refused to make any offer, saying that he was buying cotton "hog around" and that if this man wanted any more for his superior cotton he had better go ask the Government to give it to him. It is just as well to understand that the day when the buyer can fatten out of the ignorance of the farmer regarding grade, length of staple as well as other marketing conditions affecting the price, is pretty nearly past, because farmers are not going to stand for it very much longer.

The time must come when producer and buyer may deal with a fair degree of comon and equal knowledge of grade, quality and market price; the cards of both parties must be face up on the table. Concealment, sharp practice and fraud must be eliminated.

What steps can be taken to improve the quality and yield of cotton when the market conditions fail to hold out any inducement to the farmer? Except in certain sections where the production of improved varieties and better staple has become somewhat systematized, the farmer who grows the better cotton has been forced to sell it for the same price as the poorer varieties raised nearby. Inferior varieties of short staple have in some sections almost driven out improved varieties for the simple reason that the agricultural forces received no assistance from the trade, the buying and marketing end of the game, in producing better varieties for the market.

I hesitate to say it, but I think it ought to be said here, that the buyers and the cotton trade in general have not only frowned upon farmers' co-operative organizations for the production and marketing of cotton, but have even sneered at them. The State agricultural colleges, in co-operation with the Department of Agriculture, have had to put on educational campaigns to help organize farmers into growing and marketing associations in many sections before we could take any steps worth while in improving the production of cotton by better farm methods. All of this kind of work has been an up-hill job. You will pardon my saying that it has been an up-hill job mainly because it prevented the trade from playing upon the ignorance of the farmer to its profit. Instead of opposing, the industry ought to go on record at this time as favoring the organization of local groups of farmers for the production of good cotton under good methods, and ought to be anxious to see that such groups of farmers receive some consideration at the hands of the trade for their intelligent effort.

As I have pointed out, the difficulty of the present situation is that cotton is too much of a credit crop. If a majority of the bankers and credit merchants of the South, backed by the cotton industry itself, continue to loan on cotton acreage alone and refuse to lend their constructive aid to the establishment of a better type of farming in the South, then there is no hope for the breaking of the present system short of a refusal on the part of the farmers to be financed on such a basis. Supplying farmers to raise cotton is an immense business in the South, often not so because of the very unsafety of the whole system. The supply business must give way to the intelligent financing of a progressive agriculture before cotton can be improved by better farm practices.

If the financial interests, especially the credit merchants, will change the basis of credit from acreage in the cotton crop over to the responsibility of the men and into the encouragement of a safer and better rounded system of agriculture, the problem of improving cotton by better farming will be solved.

Another thing which ought to be known is the great use of the labor of women and children in the production of the cotton crop. By the last census 84.94 per cent of all women engaged in agriculture were located in the 11 cotton States. The total number of women engaged in agriculture in the United States in 1910 was 1,807,472 and of these 1,535,329 were in the 11 cotton States. **Where Iowa only had a little over 9000 women scheduled as engaged in agriculture by the last Census, Texas had 184,000, and Mississippi, Alabama and Georgia more than 200,000 each. The tenant's wife and the negro tenant's wife and daughter work in the field doing the hoeing, the chopping and the picking. I know that the world wants cheap cotton to clothe its nakedness, but may God forgive the man who wants it at the price of the labor of women and children in the cotton fields. Those of us who have loved the South because of its possibilities, who have realized the wrongs of its past history, and who have devoted long days, months and years of hard work to help solve its difficult and intricate problems in order that it might be a stronger, safer and better agricultural part of this great nation, have dreamed of a change of economic conditions which would put the Southern farm woman on a better basis in her relation to production and the farm home.** Poultry and the garden, the canning and the preserving, and the home-making which she is now so rapidly gathering to herself in the cotton States, through the home demonstration work of the State agricultural colleges and the United States Department of Agriculture, are working a revolution. But that end cannot be achieved by simply asking for a maintenance of the cotton acreage. Cotton enough to supply the world can be produced without so much woman's labor. To compete with the world in cotton production requires brains, a well-balanced system of farming which produces the family living, and a stop to the exploitation of labor. If the farm women of the South can be released from arduous work in the field and can produce the poultry and eggs, the garden, the vegetables and fruits, attend to the canning and preserving, the care of the milk and the making of the butter and the cheese, and leave to the husband the management of the cotton crop and the corn and the forage crops, the cattle and the hogs, the labor of the farm can be spread more evenly over the entire year and the income of the family very greatly augmented.

I find in non-cotton producing sections an unfortunate and very much warped idea regarding the present price of cotton and the cost of production and the effect upon the wealth of the South. I want to present a few facts which bear upon this entire problem. I undertake to say that the statistics will show, by the last census and statistics prepared since then, that the value of crop production per improved acre in the Southern States, as a rule, will exceed in value the per acre production of crops in the rich States of the Northwest, and yet the South is not rich as compared with that territory. If automobiles are any indication of wealth and prosperity in an agricultural region, it is only necessary to say that statistics show that Nebraska and Iowa stand at the top in the number of automobiles in proportion to population, having one for every 7.6 and 7.8, respectively, of the population of these two States, whereas States like Arkansas and Alabama have one for every 49½ and one for every 63 of their population.

Bank deposits might be considered as another index of wealth and prosperity. By examination of the report of the Comptroller of the Treasury for June, 1918, from all State and National Banks, we find that the individual deposits in the banks of the 11 cotton States amounted to $2,211,403,000. If the individual deposits in the banks in the States of Minnesota, Iowa, South Dakota, Nebraska and Kansas are taken, we find they amount to $2,246,896,000; in other words, the bank deposits of five States in the Northern wheat, corn and pork-producing section equal the entire bank deposits in the 11 cotton States. It probably is not fair to take the bank deposits in national banks alone, but we have later figures for these, showing that on March 4, 1919, after the cotton crop of the last year was marketed and sold to a considerable degree, the national bank deposits of the 11 cotton States did not equal the national bank deposits of six Northern States, including Michigan, Wisconsin, Minnesota, Iowa, Nebraska and Kansas.

The Bureau of Crop Estimates of the United States Department of Agriculture in their December (1918) report estimates the average value per acre of cotton and other crops in the country on a basis of December 1 prices, thus: The average value of corn, $32.82; of wheat, $31.70; of hay, $27.20, while the average value of an acre of cotton in the United States was $45.03. When one considers the hand labor necessary in producing a crop of cotton, and the horse-power and machinery so generally used in the production of wheat, corn and hay, the slight advantage in favor of the cotton crop entirely disappears. An acre of corn in Iowa, for example, was worth $43.92; in Wisconsin, $52.65; in Illinois, $42.60; in Maine, $75.15; in Pennsylvania, $62. The

cotton crop, with its great labor expenditure and its many difficult and uneconomic methods of production, gave a return of $43.09 per acre in Arkansas, $44.28 in Louisiana, $69.96 in North Carolina, $51.70 in Georgia, $31.02 in Texas and $21.68 in Oklahoma. Why even the wheat crop returned, with its minimum of labor, with no cultivation and with its wonderful opportunity for use of the most modern machinery, a crop value of $45.25 in Illinois, $43.68 in Indiana, $37.40 in Iowa, $49.61 in Wisconsin and $28.06 in Kansas.

But there is another difference which must not be forgotten, and that is the average production and its money equivalent per farm. The farmer in South Carolina or Georgia cultivates less than one-half as many acres in cotton per farm as the Kansas farmer does wheat, or the Iowa and Nebraska farmer corn. If we take the values of production per acre and multiply them by the average number of acres of the crop per farm, we find that again the apparent advantage in favor of the cotton farmer entirely disappears; first, because of the high cost of production due to fertilizer, hand labor and high-priced supplies; and, second, the relatively smaller acreage per farm. Let us make a selected list of States producing cotton, wheat and corn, and find out the average production per farm in terms of money. In reading this tabulation, please remember that the cost of production is not subtracted. Out of the items contained in the last column must come the farmer's cost of production. This is simply the gross value in terms of market prices:

AVERAGE VALUE OF PRODUCTION PER FARM.

State.	Crop.	Yield per acre, 1918.	Av. acres per farm.	Value per acre 1918.	Value per farm.
South Carolina.....	Cotton	235 lbs. lint	17.2	$64.86	$1,114.60
Georgia	Cotton	188 lbs. lint	18.3	51.70	946.11
Arkansas	Cotton	155 lbs. lint	13.04	43.09	576.40
Texas	Cotton	110 lbs. lint	26.8	31.02	831.34
Kansas	Wheat	14.1 bu.	40.7	28.06	1,142.04
Minnesota	Wheat	14.3 bu.	24.3	42.84	1,041.01
North Dakota.....	Wheat	13 bu.	104	26.39	2,744.56
Iowa	Corn	36 bu.	48.07	43.92	2,111.13
Nebraska	Corn	17.7 bu.	53.6	22.66	1,214.57

The acres of improved land in farms per capita of country population in the cotton States averages less than half the number of acres of improved land in the highly developed Central Northern States when measured by per capita of country population, and the value of farm products per capita in some cotton States is about half.

Of all the general farm crops, with the possible exception of tobacco, cotton requires the greatest amount of hand labor. Until machinery is perfected for chopping cotton and for picking cotton, there is a heavy cost in the hand labor which must be reflected in the price. The heavy items are cost of fertilizer, hoeing, chopping and picking.

Many persons have attempted to estimate the cost of cotton production. There are reasons why these costs are difficult to tabulate. It is not the purpose here to attempt to say how much it costs to produce an acre of cotton. It is easy to make calculations which are mere estimates. In a large number of cases where the production is low, it always costs more to produce the cotton than the farmer receives for it, if any reasonable value is put on the labor of himself and of his family. The year 1918 was no exception to this general rule. Let us mention the items which enter into the cost. They are rent, cost of plowing, seed, planting, fertilizer, distribution of fertilizer, chopping and hoeing, picking, delivery to gin, ginning and pressing costs, bagging and ties, marketing, repairing implements and incidental expenses. Efforts are being made now to compile the figures to show the cost. Just as in the case of wheat, a large proportion of the farmers in the South who make low yields can show that it is a pretty close proposition to make both ends meet at the end of the year. Without question many cotton farmers made money in 1917 and 1918, especially where right soil and good weather brought large acre yields. The man with only an average yield or below the average yield made little, if anything, especially where he had to buy food, fertilizer and other supplies.

Figures published before the war are almost valueless because of the changed conditions and increased cost of fertilizer, labor, food, feed, supplies, seed and equipment. Even pre-war published statements showed the margin to be narrow and that low yields (below 190 pounds of lint) brought meager returns, netting the owner almost nothing for his labor beyond existence. The relative position of cotton prices as compared with other prices leads to the conviction that war did not change this situation.

Now, the South has made great strides in the past 10 years because she has seen a great light. The acreage and production of corn, oats, wheat, peanuts, velvet beans, hay, sweet potatoes and Irish potatoes, and the production of home gardens, have all increased very wonderfully in the past decade. The number of hogs in Florida has increased 86 per cent. since 1910, in Mississippi 76 per cent, in Alabama 75 per cent and in Georgia 70 per cent. The number of beef cattle in Alabama has increased 50 per cent. The increase in dairy cows in Mississippi the last year is 41,000, Louisiana 33,000. These few figures are given as slight example of the progress made toward that safer and better-balanced agriculture. The boll-weevil, which threatened to devastate the cotton fields of the South, has proven almost a blessing in disguise, and hence she is fast building the fortifications to defend herself against the boll-weevil, the pink bollworm, the leafworm, the root knot and the wilt, and the war and the shortage of labor and all these other things by producing corn and hogs, poultry and eggs, gardens, small grain and cattle, milk and many other things.

There is another phase of the cotton situation which I must bring to your attention, and that is the shortage of labor. When a Northern man cries out for more acreage in cotton, he forgets that more acres of cotton stood in the field unpicked in 1918 than ever before in two or three decades of the history of the South. Cotton valued at 25 cents a pound stood in the field in the winter, and much of it was still to be picked in March. If there was so much profit in it, surely this would not have occurred; also what folly to plant more acres than there are hands to pick.

You go to the store to buy calico, gingham, cotton sheeting, dress goods, voiles and georgette crepes, and you wonder why they are so high. The farmer knows about this also. He knows that he used to be able to buy calico in 1914 at an average of 6.3 cents per yard. Suppose it required as much as a quarter of a pound of cotton to make a yard of calico. A quarter of a pound of cotton, which represents the farmer's part, was worth about three cents at that time. The average price farmers have paid for cotton in 1918 has been 22½ cents per yard. The price is fairly representative. If his part in the calico is still one-fourth of a pound, it is now a little over six cents. I am not complaining. I am just stating facts. There is a garment worn by farmers called a jumper, which is made of cotton. The average price of it in 1914 was 83 cents; the average price in 1918 was $2.38. I do not know what fraction of a pound of cotton there is in a yard of muslin, but I have general statistics which show the price in 1914 as 9.3 cents per yard and in 1918, 28.8 cents. When cotton was 12 cents a pound you could buy a yard of sheeting at 18 cents. When the farmers' price of cotton was 24.5 cents the sheeting retailed at 50 cents a yard. When you pay 60 to 90 cents a yard for the cotton goods which you used to buy from 15 to 25 cents, just remember that when that article sold at the smaller price the farmers' price of cotton was from 10 to 12 cents, and at the higher price it averaged from 24 to 27 cents. By consulting the statistics of the Department of Labor, collected by the Bureau of Labor Statistics, we learn that the price of calico per yard in Chicago on May 15, 1915, was 6 to 7 cents; May 15, 1918, it was 18.3 cents and on October 15 of the same year it was 24.6 cents. Bleached sheeting at the same time and place in 1915 seems to have been from 35 to 40 cents a yard; in 1918 it was 82 cents a yard.

That the value of farm products in the 11 cotton States has undergone a distinct change in the past few years is shown by the following table:

ESTIMATED VALUE OF CROPS IN ELEVEN COTTON-PRODUCING STATES—ALABAMA, ARKANSAS, FLORIDA, GEORGIA, LOUISIANA, MISSISSIPPI, NORTH CAROLINA, OKLAHOMA, SOUTH CAROLINA, TENNESSEE, TEXAS—1914 TO 1918.

COTTON COMPARED WITH ALL CROPS.

Year.	Value of cotton crop, lint and seed (U. S.).	Value of all crops, cotton excluded (U. S.).
1914.....	$677,986,000	$1,020,597,000
1915.....	799,360,000	1,123,529 000
1916.....	1,381,365,000	1,454,348,000
1917.....	1,894,876,000	2,287,736,000
1918.....	1,956,207,000	2,389,974,000

The only answer which will bring to the Southern farmer that

degree of prosperity which is his right, to the cotton industry some degree of certainty of production, which will eliminate the faults in our present system, restore confidence, cut out speculation, eliminate the get-rich-quick idea and make a good living for those who perform real services in the cotton industry, is for everyone to encourage the Southern farmer to adopt a safe system of agriculture. A safe system of farming is one which—

First—Produces the food of the people, as nearly as possible, upon the land.

Second—Maintains and improves the fertility of the soil as the years go by.

Third—Produces for sale in the markets of the world not only one, but a large number of well-selected farm crops as the basis of a dependable and profitable agriculture.

It is high time that all those interested in the cotton crop should understand that the farmer is entitled to "the cost of production plus a reasonable pront," just as much as any other business man in the world. The only permanently successful agriculture is an agriculture which is safe, dependable and profitable. The agriculture of the strictly cotton areas of the South has not been safe, has not been permanent and has not been profitable. In the main, a safe system of agriculture consists in the production of the home supplies, such as a garden, corn, small grain, forage, meat, milk, eggs and butter. This, with the marketing of the cotton, some livestock and livestock products, and possibly some grains and other crops, will go far toward stabilizing the agriculture of the cotton area. The South wants to produce cotton, but its farmers want to produce that cotton on a safe and dependable basis. That safe and dependable basis means getting its people out of debt, getting them into cash farming instead of credit farming, producing the food for its people and the food for its livestock, and the cash sale from the farms of the South of more than cotton alone.

Such prosperity as the South is enjoying today it enjoys more from the fact that its farmers, as a rule, have had to spend less for food because they have grown more of it themselves, than from the fancied high price of cotton. Even at the present price of cotton and cottonseed, considering the present yields per acre, the farmer in the South cannot buy any more with the product of the average acre of cotton at these prices that he could when cotton was worth but 10 cents per pound, speaking in terms, not of money, but of the value of the necessities of life.

Now, as to the improvement of cotton production by better farm methods, the altogether desirable things in cotton production are the introduction of the best varieties of cotton, community system of seed control and breeding work which will keep these varieties up to standard, rotation of crops and the use af manure to increase production per acre, resulting in a longer, stronger and better staple of cotton, with greater production per acre. Thousands of demonstrations conducted by the county agents in the South in the last 10 years will fully satisfy any reasonable man that it is possible to produce from three-fourth to a full bale of cotton per acre, on the average, by the use of better farm practices and better varieties. If you give us a sufficient diversity of agriculture so that we may add to soil fertility by the use of manure and rotation of crops; if you will change the financial situation so as to relieve the farmer of the requirement that he put about 60 to 80 per cent. of his land in cotton, and if you will reform the trade so that the cards may lie right side up on the table and the farmer who produces good cotton, of greater value to you than inferior short-staple varieties, receives due recognition, then we can easily take up and work out the problem of introducing and producing not only the better varieties of cotton, but a larger return per acre on less acreage. That is the ideal we are after. No agricultural worker but who delights in these better varieties and better practices. All of that is relatively easy of accomplishment if these other things can only be put straight. It lies perfectly within the range of possibility to change cotton production along these lines, but it can be done only in case the intelligence and industry of the farmer who produces the better cotton receive their fair reward in the cotton market.

Of course, this whole program involves an immense amount of constructive work; just work as we have had to undertake in putting the livestock industry on its feet, the work of teaching the farmer how to produce livestock, how to feed it, how to care for it, and then the tremendous task of teaching him how to market and of protecting him from those whose motives are purely selfish. New channels of trade must needs be created, new industries must spring up, new methods of financing must be found and applied. It is an educational movement of tremendous extent out of which all of us who are devoting effort to this line of work hope to see a kind of rural life which will be satisfying to our people and productive of that "life, liberty and the pursuit of happiness" which have been the ideals of our people from the beginning. This can mean nothing more than the happy home for every farmer, a well-built house surrounded by its vines and its fruit trees, its barns and its silos, its sheds and its equipment, with thrift and frugality upon the outside and peace and contentment upon the inside.

The lives of her people, their social, economic and moral welfare, their high regard for the type of government for which this country itself, demands sympathetic interest on the part of the people of the United States in their struggle for economic independence and such prosperity as will make them a regular asset to this nation.

There are a lot of problems to be solved in this country; problems of production, problems of conservation, and, most important of all, problems of marketing and distribution. None of these problems are to be solved by misunderstanding either the social, political or economic problems of different sections of the United States. The strength of this nation depends upon the growth, the education, the economic freedom and prosperity of each section The welfare of its most distant sections is intimately associated with the welfare of the people of every State; its strength in time of war is measured by that of its weakest economic unit or section.

Research in the Textile Industry

By E. D. Walen, Boston, Mass.

[A broad field is open for the further development of the textile industry by the application of scientific information on cotton growing through every step in the manufacture of textiles to the final finished product, as the researches so far, it is said, have been confined almost entirely to the chemistry of textiles. Mr. Walen states that if all the scattered information on textiles could be assembled, co-ordinated, catalogued and disseminated there would be little need for much additional research, but it would probably result in a somewhat different system of manufacturing. He asserts that it is not the application of advanced science that is needed, but rather the simple fundamentals mixed with a large amount of common sense.—Editor Manufacturers Record.]

The term "research" has come into common usage during the past few years, and has been spoken of and used in a peculiarly loose manner by those who have seen some application of results of systematic study, and in a very equivocal manner by those who look upon research or systematic study as being foreign to the manufacture of textiles. It is purposed to consider the ideas which differentiate research from investigation, analysis, testing and the like.

The student of pure research cannot formulate and plan his progress in advance, but is led from one step to another, and finally he has amassed a tremendous amount of information which may later find direct application to industry. Some pure researches have led to the fundamentals of the wireless; some the electric motor; some the X-ray; and some the basis of our present coal tar dye industry.

Very often, in many discussions of research into textiles, it is observed that theoretically a particular combination would work, but practically it would not. The laboratory as a supplement to industrial research is often looked upon as not being productive of practical results. The purpose of a laboratory is to provide a place where the variables may be controlled in order that reasons may be assigned to observed results. In many cases it has been found that the results obtained in the laboratory cannot be duplicated in the mill, and the immediate assumption is that the laboratory work is wrong and entirely useless. Usually the variables in a mill are not well under control, and it cannot

be expected that a method devised in a laboratory will thrive under hit or miss conditions. If the findings of the laboratory indicate good results, the manufacturer would do well to consider these results seriously to determine ways and means of changing his methods to more nearly conform to the conditions found to be best by the laboratory. The function of the laboratory in textiles is very largely to provide a means of determining the ideal and the variables controlling the attainment of the ideal. It can readily be seen that a textile research is not complete in the laboratory, and that the biggest part of the research is determining how the results may be economically applied to manufacturing.

The progress of research into textiles is at present limited by the attitude of the grower and manufacturers to the laboratory and research, and will continue to be limited so long as they assume that their present methods and practices are the ones which they will always use. Specifically, research will be limited largely in the case of the manufacturer to refinement of the mechanical features of the machines; in the case of the grower, to the growing of pure strains, regardless of whether the cotton is best suited to manufacture or not. It is not my intention to give the impression that the whole structure of the industry should be discarded, but that the industry should be willing to make concessions to the findings of research, provided the changes suggested are seriously considered and found to be conducive to an economy of production sufficient to warrant the changes.

It is extremely difficult to determine to what extent research has really been conducted in textiles, for the literature is not classified, and it is often by merest accident that the textile people themselves come in direct contact with the results of our research.

This condition is augmented by the fact that there is no organ through which the pure researcher may present his results to the controlling men of the industry; that there are very few who have really attempted to apply scientific information to textiles; and that there have been many who call themselves researchers, but who really have been nothing more or less than salesmen for some wildcat scheme working under the guise of researchers.

So far as the speaker has been able to determine, there have been scarcely any researches into textiles, and these have been confined almost entirely to the chemistry of textiles. If all the information which everyone has on textiles could be collected, and expressed in terms to allow of co-ordination, it is assured that there would be but little need for much research, and there would probably result a somewhat different system of manufacturing.

During the past few years considerable industrial textile research has been conducted in the production of war materials, and this has served to show that the laws governing the behavior of the materials used in textiles are fundamentally the same as those which govern the behavior of other materials; but they are so obscured by the effect of variables and peculiarities of the material that, at first, there is presented a hopelessly involved situation.

The discussion of generalities of research has been presented to define the relation of the various agencies, in order that we may discuss research more specifically in its relation to textiles. Experience has proved that chemistry can be applied to textiles with more economical results. Let us consider the manufacture of textiles with a view to determining the application of physics, the other branch of natural science, and to determine the advantages which may be derived from what may properly be termed the physics of textiles.

It has often been stated that research has been successfully carried out in other industries, but that textiles are so different, research cannot be applied advantageously. We have but to review the progress of research in other industries to find that the same comments have been made previous to the successful application to other industries. Can we imagine the old school steel manufacturer testing his raw materials, and expressing the results in terms of measurable quantities which may be multiplied, added or subtracted, to express in measurable terms the characteristics of the finished product, and using these results to maintain the uniformity of the product?

Can we imagine the modern engineer scratching or drawing a file across the available raw materials, and, from the feeling conveyed by the scratching implement, economically designing and constructing a bridge or large building?

Lastly, can we imagine a textile manufacturer testing his raw materials, and expressing the results in terms of measurable quantities, and from these values determining, almost with mathematical certainty, the most economical process of manufacture, as well as maintaining the uniformity of the product?

The usual answer is that steel is used in the construction of things which must stand definite stress, and that textiles are made to wear and look well, and therefore cannot be considered in the same category as structures or machines. However, it is necessary to construct the fabric, and in so doing the properties of the raw materials during manufacture must be considered. As an example, the stresses of weaving are just as certain and inevitable as those in a bridge when a flat-wheeled car passes over it, and to weave quickly and successfully the yarn must be constructed to resist the stresses. In this particular case, the theories of elasticity and hysteresis flexure and friction are applicable.

The manufacture of fabrics which are used for mechanical purposes affords a very clear conception of the application of physics to textiles and is exemplified in the design of successful cotton airplane fabrics, with which development the speaker was closely associated. In this research, the conditions of flight, and the nature of the stresses of flight, which had previously been determined by other investigators, were studied in connection with the properties of linen fabrics being used, together with the properties of the impregnating chemicals, with respect to the particular kind of stresses and conditions being considered. From these two sources originated the theory of fabric airplane wing coverings. The next step was the interpretation of the theory in terms of textiles, and the result was a highly successful product, designed almost entirely from a consideration of the physics of the situation.

The research further demonstrated the difference in results obtained from cut-and-try methods, and those obtained from systematic study, in that the previous investigators who, without exception, used cut-and-try methods, concluded very definitely that cotton could not be used to cover the wings of airplanes.

The application of research to fabrics and yarns, which may be termed appearance goods, is not so evident, but a little careful thought will indicate that there are good possibilities. A textile material may be considered as a group of fibers which have been arranged mechanically to produce the particular result; and, in order to arrange them most economically, the properties of the cotton must be in accordance with the demands of the manufacturing process, or the manufacturing process must be suited to the fibers. Regardless of the ultimate use of the material, the limits of size, evenness, and speed of manufacture are defined by the characteristics of the cotton.

From this it is evident that the properties of the cotton are a large determining factor in the economical manufacture of cotton goods, and the money value of raw cotton depends upon its manufacturing properties, and not directly upon its strain or botanical features, or the yield per plant. At the present time the researcher in the growing of cotton determines the length, cross section, strength and convolutions per unit of length. What combination of these should he strive for, in producing the best cotton to be manufactured? Or, is it some other property which determines the spinning value of the cotton? In any event, the desired properties are physical, and have to do with physics.

At the present time the manufacturer determines the probable value of the cotton for manufacturing by the sense of feel and sight. Such methods are of no avail to the botanist or the grower of cotton, because he is not a manufacturer, and has not been brought up in intimate contact with the machinery of the mill. It is highly probable that what the manufacturer feels can be measured and expressed in terms which can be interpreted by the grower.

Obviously, research into the growing of raw cotton cannot progress rapidly and surely along proper lines until the requirements of the manufacturer can be expressed in measurable terms, which convey a definite meaning to the grower or botanist. A co-operative research into raw cottons would prove of great value.

In this connection, the development of the growing of beets for the manufacture of beet sugar may be of interest. It was observed that the yield from beets grown by a few farmers was better than the rest. The manufacturers naturally asked why not grow beets for the purpose intended, and began investigating. As a result, practically all beets are now purchased on assay or

chemical analysis. The manufacturer, in a great many cases, supplies the seed; tells the farmers how to take care of the growing of the plant, etc., and the yield from beets grown under the supervision of the manufacturer is much greater than from those grown by the farmer alone.

It is certain that the problem of growing cotton for the manufacturer is considerably more complex than the growing of beets, and that the analysis of the manufacturing properties of cotton is more complicated than that of sugar; but it is not impossible, and once a concerted start is made the outcome will be successful.

The process of ginning was designed to take the seeds out of cotton, with no further reference to manufacturing. Considering the condition of the cotton from the gin, there is every reason to believe that a systematic study can do much to improve the ginning, to reduce the number of neps, cut flowers, and the like.

The problem of sizing has long been considered one of chemistry, yet it is really a problem in physics, for a yarn is sized to give it certain physical properties to resist the stresses of weaving. It has often been said that what is true of weaving is not true of knitting. This is very largely so, yet the yarns break while being knitted, and why not treat the yarns prior to knitting to resist the particular stresses, and to conform easily to the looping in the needles?

The same general thought may be carried through the various processes of the mill, both in the manufacture and finishing, and it will be seen that the whole success of the processes depends upon the physics and chemistry of manufacturing. There is no reason why the manufacture of textiles cannot to advantage be placed on a clean-cut and scientific basis.

If we are agreed that research has a field in textiles, where are the men coming from who are capable of conducting research in textiles? The textile schools turn out men who are very largely trained in the present methods of manufacture, and have very little training in the study of the fundamental consideration of physics. The universities turn out men well trained in science, but as a rule these men find immediate easy application of their training to the industries which are more scientifically conducted, and, not knowing textiles, can see little or no application for the splendid theories of advanced science.

As a matter of fact, the textile industry does not need the application of advanced science, but rather the simple fundamentals mixed with a large amount of common sense. The Government agencies are training men fitted for such research, but if the industry draws from this source, the agencies of the Government cannot be used in the interest of pure research, but resolve themselves into a training school for a limited few, which is not a very logical use or occupation for the Government. It would appear that if the industry wants research, it will have to put such a premium on research as will draw scientific men into the field.

Necessity of Paying to the Producer a Profitable Price for His Cotton

By J. Skottowe Wannamaker, President American Cotton Association, St. Matthews, S. C.

[In pointing out the need for increased cotton output, Mr. Wannamaker says that in a few years 35,000,000 bales, which represents an increase over the present consumption about equal to America's average annual production of the last decade, will be required for the world's spinning trade. Before the 1920 crop is available, Mr. Wannamaker predicts an absolute exhaustion of raw cotton. This fact, coupled with the present cost of production, will cause cotton to bring 50 cents or more a pound, for he thinks to receive less would render other crops more profitable. Cotton labor is demanding an increase in the quantity of his necessities of living as well as in quality. Mr. Wannamaker goes into extensive details of the cost of cotton production and the reasons therefor, which force the producer to sell at a higher price. He urges that committees be appointed by the Conference to study every phase of the cotton industry and that these committees use every means to co-operate with the cotton producer. Outlining the scope of the work of the American Cotton Association, he states that plans are under way for better baling and compression, establishment of warehouses through the South, and the organization and capitalization of co-operative cotton marketing societies throughout the cotton belt, which will deal direct with the spinner.—Editor Manufacturers Record.]

The most important issue that faces the cotton world today, and one of the most important issues facing the entire commercial world, is the immediate need of a marked and permanent increase in the output of American cotton. The World Cotton Conference will certainly have to face this issue. If they do not, their work will mean but little, as the immediate and permanent increase in the output of American cotton is supreme above every other interest that now concerns the cotton world. This increase can only be accomplished by co-operation between the manufacturer and the producer, by a complete change in the many antiquated methods of the handling of cotton, and by a great increase in the price paid to the producer for his cotton. There is no product which will be more affected by the World War, that is, by the conditions growing out of same, than cotton.

The world's consumption of cotton today is approximately 23,000,000 bales, and of this, during the last decade the American crop averaged about 13,000,000 bales. It is predicted that there will be an enormous increased demand for cotton as a result of changes growing out of the war; that in a few years' time the world's spinning trade will require annually above 35,000,000 bales of cotton. We are entering upon a period of intense activity. Factories are being erected and spindles added for the purpose of assisting to meet the additional demand for cotton goods. The world is hungry for cotton. The supply of cotton goods has been steadily wearing out for five years, and now the world must be reclothed just as it must be fed from its famished condition.

The cotton manufacturers have enjoyed a period of intense prosperity; cotton-mill stocks are in demand at enormous premiums. The increase in the world's population and the increased use of cotton in other products indicates that normal conditions, once restored, must be maintained by an annual increase if the world's economic life is to be kept on a sound basis.

The growing cotton crop will be the shortest in the last decade. This crop, added to the surplus of spinnable cotton brought over from last year, will fail to supply the world's demands.

Before cotton can be secured from the 1920 crop we will face an absolute exhaustion of raw cotton. In addition to this, we must have the largest crop next year ever produced to fill pressing demands and prevent suffering on the part of the consumer of cotton goods. A small crop would mean idle spindles and great loss to the manufacturer.

To increase the American output the work in the production of cotton must be made more attractive to the laborer than work in the production of any other products. This means in the last analysis that the consumer must finally pay a price well above any recorded since the war began. The producer realizes his patriotic duty to produce, and is anxious and ready to perform his every duty, but he will no longer produce except at a profitable price. He is anxious to co-operate direct with the manufacturer, and feels that their interests should be mutual; that much of his trouble and adversity today is chargeable to the army that stands between him and the manufacturer, claiming an enormous toll from his product.

The price that the producer will demand will be, in my judgment, at least 50 cents per pound, basis middling, or more. A price less than this would render other crops more profitable and would mean the certainty of another small crop. This opinion is based upon the estimated cost of production for the growing of cotton, the price of other crops that can be produced on the same lands; the marked change in labor conditions. Anything that threatens to interfere with a marked increase in supply of American cotton under existing conditions is positively a menace to the welfare of the human race. The old day of low-price labor and low cost of cotton has gone forever. The old economic chains of the all-cotton system have been broken and gone to the scrap heap, never again to be forged.

As a matter of patriotism first, and next as a matter of necessity, the cotton producer planted largely his lands during the war in food and feed crops. The result has been startling. The do-

trine that has been preached to the producer for the last 60 years has been put into practice. The possibilities of the soils of the South and the necesity of diversified farming have been startlingly illustrated.

The boll-weevil, which threatens to devastate the cotton fields of the South, has proven almost a blessing in disguise, and hence she is fast building the fortifications to defend herself against the boll-weevil, the pink bollworm, the leafworm, the root knot and the kwilt, and the shortage of labor and all those other things by producing corn and hogs, poultry and eggs, gardens, small grain and cattle, milk and many other things.

Throughout the length and breadth of the entire South, into the remotest rural districts, today the cost of the false economic conditions under which the Southern cotton producer has been laboring is understood as never before. He realizes that cotton growing is sectional. Its use, like sunlight, reaches the furthest clime. The world demands it, and like sunlight, the world demands it cheap. Cotton, fabulous in its beneficences, a curse only to the section which produces it. Cotton brought the slaves from the East to the South at a price that was productive of internecine strife and of civil war. Cotton made the South the defenders of slavery, the derelicts of agriculture, the victims of a vindictive peace, and consigned them to a sectional prejudice in the country's government. The unnatural demand that cotton should be grown cheap and sold cheap placed the South in everlasting defense of its life product, and in the fatal position of organizing within the Government an ex parte government for its own protection. All of these things have made the South poor, not rich.

The production of cotton brought the fearful reconstruction period to the South. The South had for 14 years to endure a condition in many respects surpassing that from which Europe is suffering. But the South rallied. It never cringed, and it never whined. When the tattered troops of Lee and Jackson returned to their ruined homes in the cotton belt they and their families took up the work of the slaves in the cotton fields, and have toiled from that day to this. The price of cotton was based upon slave labor, placed upon a starvation basis, the chains of commercial slavery were locked around the South, and 4,000,000 slaves were set free and put in charge of the Government. We endured a period of degradation and suffering unrecorded in history.

The agricultural labor of the South is in the process of a readjustment. What does this new alignment mean and to what extent and how will it affect the price of farm products? The answer to these most important questions is revealed in the increasing items of comfort which the alignment is adding to the living conditions of the laborer. A careful figuring of the ratios indicates that the cost of living on account of this increase in comfort will be around eight times more than it was, say, 25 years ago. On some items the ratio really figures much higher than this average. Let us take as illustration the items of food, clothing and housing. The laborer is not only demanding a decided improvement in the quality of these necessities, but a very decided increase in the quantity also. For instance: A family of four—man, wife and two children—under the old regime were issued four pounds of meat a week, mostly for the use of the man. It cost about 32 cents. Now they are demanding sufficient for all the family—10 pounds. It costs about $3.50. Such a family in that era got two pairs of brogan shoes a year. They cost about $1.50 per pair; total, $3. Now they want two pairs of brogans, two pairs for Sunday wear, two pairs for the children—six pairs in all. They will cost around $25. Now, as to clothing: The man got about one woolen suit every two years in the old days. It cost around $8, or an average of $4 each year. Now he wants at least one suit every year, costing around $25, with the probability of it averaging more. The same ratio applies to the clothing for the wife and children. Such a family, under the old conditions, lived in a one-room log cabin, built without brick, glass windows, screens or ceiling; it cost approximately $50. They are demanding now a house with several rooms, brick chimneys, glass windows, screened and ceiled throughout. Such a house will cost now above $500.

Cotton production in the South has forced the employment of women and children in the cotton fields, regardless of hours and age. By the last census 84.94 per cent of all women engaged in agriculture were located in 11 cotton States. Those of us who have loved the South because of its possibilities, who have realized the wrongs of its past history, and who have devoted long days, months and years of hard work to help solve its difficult and intricate problems in order that it might be a stronger, safer and better part of this great nation, have dreamed of a change of economic conditions which would put the Southern farm woman on a better basis in her relation to production and the farm home.

As a result of cotton production in the South, the producer has been forced to become a commercial cannibal, this being absolutely necessary to enable him to exist He destroyed his forestry; fleeced his soils of their fertility; existed on his natural assets, denying to himself and his family reasonable hours of work, proper working conditions, a decent home and the opportunity to play and to learn. To exist upon the price paid for cotton by the manipulator for the last 60 years has brought conditions to the rural sections of the South that have failed to attract any immigration to the cotton-growing section has driven the white man to other employments, and is even driving the negro today into other fields of work.

Had it not been for the planting of cotton in the South and the false economic conditions resulting therefrom, this would have been the richest and most populous part of America. It would have been the center of the nation's industrial activities; the center of diversified farming, and it would surpass in wealth that of the Eastern and Central Western States. We had the soil, and we still have the climate and the natural resources. We wasted much of our soil by the one-crop system without rotation. We have natural advantages surpassing those of any other equal area in the world. We have yielded up the most priceless heritage of natural advantages ever given to any people on earth through our slavery to the one crop, cotton, this being due to the fact that the price has been absolutely set and dominated by the buyers and the producer has never been allowed a voice therein.

The growing cotton crop is the most costly ever grown in the South. Never again will we see cheap labor. Owing to a wholly erroneous estimate by the public, cotton has always occupied a false position in the economic life of the South. This has been due to the habit, inherited from the regime of slavery, of not charging the crop up with the expense involved in its production in keeping with what sound business usage demands. In the South cattle, sheep, hogs, corn, oats, potatoes and other products, representing millions of dollars in value, have been, and continue to be, consumed each year on the farms upon which they are produced. Where half of the area cultivated is in cotton, the consumption of fully 75 per cent of these products is made necessary by the cultivation and harvesting of the cotton crop, that being about the excess of labor which cotton requires. In other words, if it had not been for the cotton crop, 75 per cent of these products consumed could have been sold for cash and would have become a liquid asset of the farmer. The fact that machinery can be used in both the cultivation and harvesting of most of these other products accounts very largely for this excess against cotton. But cotton is a hand-made product. Until very recent years, not a dollar's worth of these products were ever charged up to cotton, or was seriously regarded as a part of the expense in its production. Thousands of women and children, white as well as black, have worked in the cotton fields, the major part of them under the most wretched conditions of poverty, yet, for the better part of half a century their labor was not even considered as an item of expense in growing cotton. Indeed, there are still to be found some people who figure that cotton can be grown at a low cost, frankly basing their estimates on this slavery of women and children as a cheap form of labor. This habit, inherited from slavery days, of giving cotton the benefit of free labor and free food, finally became crystallized into the conventional view, which has been for years, more or less, authoritative, and has, to a considerable degree, intimidated the free expression of opinion regarding the cost of production. The fact is, a strict accounting so raised the cost of production, as compared with the views based upon the slipshod methods of the past, the real basis for the conventional view, that students from a fear of criticism were for a long time actually reluctant to announce the result of their calculations, although their findings were clearly justified by the rules of sound bookkeeping, and also by recognized facts as to the value of the products consumed in production.

The following estimate as to the cost of production is taken from the South Atlantic States, where commercial fertilizer is used.

(In a large number of the South Atlantic States German potash is indispensable for the production of cotton. The non-use of this potash for the last four years has proved very injurious to the

soils, and it will require years to rebuild the vitality of the soil so as to produce a normal yield of cotton.)

COST OF COTTON PRODUCTION ILLUSTRATED ON A ONE-HORSE FARM OF 27 ACRES.

Fertilizer:	
Six and three-fourths tons fertilizers, 8-3-2, at $58	$391.50
One ton nitrate soda	90.00
Labor:	
One plow hand, 12 months, at $40	480.00
Hoe labor, 18 acres, at $2.25	40.50
Extra labor, gathering corn, hay, etc.	50.00
Picking 10 bales cotton at $1 per hundred	120.00
18 bushels planting seed at $2	36.00
10 per cent depreciation on $600 equipment	60.00
Incidental expenses	30.00
Ginning, bagging and ties, 10 bales	50.00
Total	$1,348.00
Income:	
7 bales, 400 pounds each, at 30 cents	$840.00
240 bushels cottonseed at $1	240.00
	$1,080.00
Net loss	$268.00

Even basing the cotton at 50 cents a pound, income from this cotton would be $1400 instead of $840 at 30 cents, a difference of $560, and subtracting the net loss of $268, would leave the farmer, at 50 cents per pound, a net income of only $292 for the year's work.

It is absolutely necessary that the producer receive a profitable price for his cotton that will enable him to rebuild rural conditions so as to attract and hold his labor. A census of white homes of cotton producers taken consecutively at various sections of the cotton belt proved the absolute necessity of this. This investigation brought to light that there was only running water in 5 per cent of these homes; only 4 per cent of the homes had lights, either acetylene or electric; only 2 per cent contained sewerage. Five hundred negro homes, of course, showed the absolute absence of any of these, but it further showed the fact that it will be necessary to absolutely change the negro cabins, making them more comfortable and attractive. To bring about these changes it will require the expenditure of billions. The white man returning from service has brought a new vision. He will no longer tolerate the deplorable conditions that have existed for the last 60 years. Unless cotton will bring a price that will change these conditions he will refuse to return to the cotton farm. The negro comes back with a different viewpoint. He refuses to longer seek employment in producing cotton under existing conditions. He is accepting more comfortable surroundings and larger remunerations which are freely offered to him in other lines. This is resulting in the spread of discontent throughout the entire cotton belt and is bringing about a great shortage of labor.

Referring to the increase in the price of the staple products consumed in growing cotton, the following make up the major part of this cost: Bacon, dry salt ribs, lard, cornmeal, flour, oats, corn, sheeting, ticking, calico, plaids, osnaburgs and Fruit of the Loom. Retail merchants' books and local market quotations approximate, with much more accuracy than any other records, the price the growers of cotton have to pay. These records show that, from 1913 to May, 1919, the price of these commodities advanced 273 per cent. Labor during this time advanced 240 per cent, most of it during the last 20 months. As labor makes up, according to the best authorities, about 50 per cent of the cost, these figures show an increase in the cost of growing cotton during this period of 256 per cent, or 34.56 cents per pound. In other words, cotton today would have to sell at 48.06 cents per pound to bear the same relation to the expense involved in its production that it bore in 1913, when the average price was 13½ cents. These figures point, with a fair degree of precision, to a loss of more than $1,000,000,000 on the indicated crop, if it should be sold at the current price of future contracts. Yet the public, in the South as well as in the North, is always keyed up over the crop reports, while what the cotton is going to cost is either neglected or ignored.

High prices of cotton as compared with former years must inevitably continue because of high cost of production. As labor and foodstuffs and iron and steel have been lifted by the war inflation to a very much higher plane of cost than in former years, so cotton must inevitably go. Every man who seeks to lower the price of cotton is seeking to permanently decrease the world's supply to a famine condition, for the farmers of the South have become thoroughly alive to diversified agriculture, to livestock raising as a business, and to the opportunities of profitable employment in industrial pursuits, and even 50 cents a pound for cotton will not bring them back to the all-cotton system.

In the light of these facts, it becomes the solemn duty of every man and woman, regardless of profession or occupation, to do everything in their power to encourage the thought and to co-operate in the work of securing a profitable price to the grower. And what must this price be? In the first place, it must pay to the worker in the cotton field, whether he be a day laborer or a tenant, as large a wage as he could make in similar employment elsewhere. It should mean an income to the family which would send the children now in the cotton fields into the schoolhouse and send the women back into their homes. On top of this, it should mean a fair rate of interest on the capital invested in the land, after allowing for the better fertilization of the soil, a fair profit on the livestock and the farm equipment used after depreciation and a profit has been counted on this. And until cotton brings a profitable price, the producer will continue to plant more largely other crops.

The American Cotton Association was formed less than one year ago, and it is already becoming the guiding star of the cotton producer. With representatives in every section of the entire cotton belt, and a membership of over 1,000,000 farmers, merchants, bankers, business and professional men, it is showing the farmer that he produces the fiber that clothes all the civilized world, a product that all mankind must have, and for which they must pay him a profitable price. Otherwise, it is a matter of safe, sound business for him not only to reduce his cotton acreage, rotate his crops, planting largely in other crops, but to reduce them to such an extent that the world will pay him a profitable price for his cotton.

The American Cotton Association will undertake, in behalf of the cotton-growing interests of the South, to evolve out of the present primitive, wasteful and unprofitable handling and marketing of the cotton crops, economic and efficient methods of baling, warehousing, handling and marketing the staple so as to permanently provide fair and reasonable prices for the growers. In the reconstruction of this country's industrial and agricultural business as an aftermath of the World War, economy and efficiency must be the guiding feature to success. How and in what way does the American Cotton Association propose to organize the growers and allied business interests so as to relieve the wasteful and existing unsatisfactory and intolerable burdens and bring into practical realization those economic and efficient reforms which will make the future production of cotton both profitable and attractive to the growers? The following three planks incorporated into the general platform of the American Cotton Association answers the questions and will make possible a speedy solution of the many vexed problems by which the growers have been confronted during the past 50 years:

First—The economic reform of baling cotton through the adoption of high density gin compression at every gin plant in the South.

Second—The establishment of ample cotton warehouses at every interior cotton market and at the ports, with space sufficient to store every bale of cotton produced until sold and shipped for consumption.

Third—The efficient organization and capitalization of county co-operative cotton marketing societies and State cotton corporations throughout the cotton-producing States, so that the growers will own and control the agencies and machinery for marketing their cotton and cottonseed direct to consuming establishments in this country and in Europe.

The producer can find no law, human or divine, to force him to continue to produce cotton for the purpose of selling it below the cost of production, nor is there any divine command resting upon the South to raise cotton, either for the purpose of maintaining the supremacy of this country in the cotton trade or for clothing the world. Therefore, the Southern farmer is determined to operate his farm upon a business basis; his production of cotton will continue to decrease; his production of other more profitable crops will continue to increase until profitable prices are paid for cotton.

In fairness and justice to the producer, as a matter of protection to the manufacturer and the consumer, I urge that this great conference squarely face the issue; that they appoint all necessary committees with full authority to make a study of these questions, including the cost of production of cotton and the various questions bearing thereon; to make a study of the various methods used in the handling of cotton, and not only recommend, but assist, in changing these antiquated methods so as to reduce the cost of production in every way possible; to remove all unnecessary re-handlings of cotton; to arrange as far as possible direct dealings with the producer. I urge in the strongest terms that they use every means to co-operate with the producer. This action will be simple justice not only to the producer and manufacturer, but to the consumer of cotton goods.

Cotton Velvet

By CLARENCE OUSLEY, Assistant Secretary United States Department of Agriculture, Washington, D. C.

[Prosperity of the South at present is not due to the high price received for cotton, but to the system of safe farming, the diversification of crops of the last several years, for Mr. Ousley says that there is more profit in corn at $1.85 a bushel than in cotton at 30 cents a pound. Cotton is rated as merely the profit upon the year's business, the money crop. Under diversified farming he predicts the South will become the most prosperous agricultural section of the world. Mr. Ousley well takes the ground that the safety of the country lies in a prosperous, cultured and contented agricultural people.—Editor Manufacturers Record.]

Contrary to popular understanding, cotton is neither the South's most profitable crop nor the major half of its agricultural production. The time was when it was both, but that time has passed. I hope never to return, for during the period when cotton was the king of our agricultural domain we were the miserable serfs of a monarch, who, like all monarchs, imposed a rule which exploited his subjects for his own vain glory and for the enrichment of favorites in the trade, who toiled not, neither did they spin. It was the economic paradox of that period that producers and spinners alike, the two classes who made the raw material and converted it into useful fabrics, prospered uncertainly or not at all, while during the present period of King Cotton's dethronement the producers and the spinners alike are prospering as never before.

Notwithstanding the wails of some of the cotton fanatics, the South is prospering. But its present prosperity is not due to what the ignorant call the high price of cotton, for cotton is not relatively high, not as high as wheat or dry goods compared with prewar prices, nor is cotton at 30 cents as profitable as cotton was at 12 cents five years ago, for the cost of production has increased in greater ratio than the price of the raw product. I lack the time to demonstrate this fact, but it is easily demonstrable upon the simplest system of cost accounting.

The South's prosperity this year, as for the last three years, is due not to the price of cotton, nor yet to the price of other farm products, taking either as a sole cause, but to a system of safe farming which we are practicing in obedience to sound agricultural economics which the calamity of the world war brought convincingly to our understanding.

Let me present the incontestible proof of my opening statement that cotton is neither the South's most profitable crop nor the major half of its agricultural production.

The present cotton crop may be conservatively reckoned at 11,000,000 bales, with a commercial product of 5,000,000 tons of cottonseed; the prices may be conservatively assumed as 30 cents a pound for cotton, or $150 a bale, and as $70 a ton for cottonseed. At these figures the gross value of the crop is $2,000,000,000 in round numbers.

It will surprise most people to learn that the South's corn crop this year will nearly equal the cotton crop in gross value. Its net value, I venture the guess, is greater. I call any practical farmer to witness that there is more profit in corn at $1.85 a bushel than in cotton at 30 cents a pound, the average prices in the United States on September 1.

The value of the corn crop in the 11 principal cotton States this year is $1,357,443,000. If I should add the corn crops of Missouri and Virginia, which produce some cotton, the amount would be about a half billion more. Then if I should deduct from the cotton crop the value of California's and Arizona's cotton, the corn totals of 13 cotton States would about equal the cotton totals in the same States. But I shall contrast the total cotton value in 15 States with the value of six other staple products in only the 11 principal cotton States—North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas—and we have this rather startling disclosure:

Corn	$1,357,443,000
Oats	132,039,000
Potatoes	56,836,000
Sweet potatoes	115,806,000
Hay	208,120,000
Peanuts	76,475,000
Total	$1,946,719,000

I use only the products grown in considerable volume in each of the 11 States. I omit the figures on rice in Louisiana, Texas and Arkansas; sugar-cane in Louisiana and Texas and ribbon cane in nearly all; Kaffir corn and other grain sorghums and brown corn in Texas and Oklahoma; wheat in Texas, Oklahoma and North Carolina; tobacco in the Carolinas, Georgia and Tennessee; wool in all, with 11,800,000 pounds in Texas alone; fruits and vegetables in Florida, Louisiana, Texas and the whole lower Gulf region. I omit, also, all livestock, the vast range production of Texas and Oklahoma, and the increasing production of cattle and hogs in all the Southern States, because the greater part of these food crops is sold on the hoof. Add these other crops and the increment on the livestock, and the gross value of products other than cotton will so far exceed the value of the cotton crop that it will appear as a by-product of Southern agriculture.

And this observation is the vital point of the present situation. The South has raised her food and feed, and her cotton is "velvet." Our two-billion-dollar cotton crop without these other crops would all be required for sustenance and nothing would be left for profit. With sustenance provided, our cotton may be rated in a broad sense as profit upon the year's business.

It would be as foolish to abandon or substantially to reduce cotton production as it would be to return to cotton slavery. Cotton is our surest crop and our quickest asset. Though from breaking to harvest the crop covers a year or more, the actual time consumed in all operations is much less than six months, and other crops may be planted, cultivated and harvested with little more man-power and mule-power than required for cotton alone. To put the case another way, with food and feed provided, the cotton crop becomes a surplus for investment or enjoyment. This is safe farming as distinguished from cotton farming.

If the South will practice this kind of farming for two or three decades it will become the most prosperous agricultural region in all the earth, and at the same time will furnish the world with a more or less uniform supply from year to year and prices will be stable and profitable.

If I had the power to render the one service which in my judgment means more for the peace and happiness of my countrymen than any other material service, it would be to burn this truth into the consciousness of every man, woman and child in the South, so that it would become the fixed rule of conduct to be observed without variableness of purpose or shadow of turning. With my whole mind, as the result of 30 years of study and observation of the problem, I believe that the safety of this republic, with all that it involves and betokens for the welfare of mankind, lies in a prosperous, cultured and contented agricultural people. I fear cities, with their mighty industries and their contending classes, and I never feared them more than at this moment of clash and strife beating like the waves of an angry sea against the frail structure of our most precious institutions of personal and property rights. Against the greed of commerce as it has been practiced in certain quarters in the East and the heedlessness of certain class organizations, the one seeking to use and the other to subvert the Government, the thoughtful home-owning, liberty-loving, Godfearing farmer is our chief bulwark. As the producer of our primary necessities of food and raiment he is fairly entitled to economic independence; as the citizen free from selfish prejudice against either capital or labor because he profits by the advantage of neither, yet is appreciative of the worth and the merits of both because in his business operations he is both capitalist and laborer, he deserves our profoundest respect, and we owe it to ourselves, to our country, to the common weal to promote practices and policies that will make agriculture a calling of dignity, power and comfort.

The World's Future Requirements of Cotton

By Prof. J. A. Todd, Secretary Empire Cotton Growing Committee; Professor of Economics, Nottingham University College, England.

[Demand for cotton has been steadily increasing, but Prof. Todd says consumption has not increased as fast as it would if the supply of cotton had been available. Consumption has been going up steadily while the output was fluctuating, with the result that about every other year the actual consumption was in excess of the season's production. The American crop dominates the world's supply, and he states the practice of what he describes as the see-saw movement of a big acreage and crop one year at low prices, the next a small acreage and crop at high prices, has been bad for everybody connected with the industry. The price of cotton today relative to other commodities is not dear. He touched on the question of the world's cotton requirements for the next five or ten years, and said with the recovery of Europe and the solving of labor difficulties the world's consumption of cotton will not be limited by the means of manufacture, but by the lack of cotton. Prof. Todd believes that, from what he has seen while in this country, an increased crop in America is improbable unless it is achieved by better cultivation. He sees no prospect of raising more cotton in foreign countries, judging by experiences of the past, at least for many years, so he says a larger crop must come from America.—Editor Manufacturers Record.]

The time limit does not allow any margin for preliminaries, but before I can go on to deal with the world's future requirements I must say something of our experience before the war, and during the war, to enable you to follow me a little better in the extremely rapid survey of these facts. You will find on a piece of paper before you the particulars of some of the things that I have to say about the statistics to which I shall refer, and I shall like to ask your attention to these as I go along.

TABLE I.—BALANCE OF PRODUCTION AND CONSUMPTION OF COTTON, 1904-1919.

	World's Commercial Crops and Mill Consumption				American Crop and World's Consumption thereof			
	Mean Crops.	Mean Consumption.	Balance.	Average Price of American, Indian and Egyptian.	Commercial Crops.	Consumption.	Balance.	Average Price American.
1904-1905	19,648	17,726	+ 1,922	5.66d	13,676	12,664	+ 992	4.93d
1905-1906	17,266	18,214	— 948	6.73	11,443	12,081	— 638	5.94
1906-1907	20,816	19,523	+ 1,292	7.21	13,735	13,203	+ 532	6.38
1907-1908	17,564	19,393	— 1,829	6.68	11,456	12,112	— 656	6.19
1908-1909	20,229	19,828	+ 401	6.29	13,831	13,157	+ 674	5.50
1909-1910	17,216	19,148	— 1,932	9.10	10,592	11,754	— 1,162	7.86
1910-1911	18,854	20,222	— 1,368	8.54	11,986	12,054	— 68	7.84
1911-1912	22,157	21,495	+ 662	7.09	16,108	14,515	+ 1,593	6.09
1912-1913	21,503	22,302	— 799	7.57	14,106	14,715	— 609	6.76
1913-1914	23,309	22,296	+ 1,013	7.52	14,882	15,541	+ 341	7.26
1914-1915	Complete statistics not available				15,108	13,834	+ 1,274	5.22
1915-1916					12,038	14,812	— 1,874	7.51
1916-1917					12,941	13,906	— 965	12.33
1917-1918					11,907	12,282	— 375	21.68
1918-1919					11,640	10,620	+ 1,020	

TABLE II.—ACREAGE, YIELD AND PRICES OF THE WORLD'S CHIEF CROPS, 1913-20.

Season.	Acreage.	Per cent on 1913.	Crop.	Yield per Acre.	Liverpool Prices (pence per lb.)		
					Lowest.	Highest.	Average.
American.	Acres.		Bales 500 lbs. approximately.	Bales.	Middling		
1913-1914	37,458,000	...	14,6 9,968	.39	6.20	7.96	7.26
1914-1915	37,406,000	100	15,067,247	.40	4.25	6.50	5.22
1915-1916	32,107,000	86	12,953,450	.40	5.34	8.74	7.51
1916-1917	36,052,000	96	12,976,000	.36	8.12	19.45	12.33
1917-1918	34,325,000	93	11,912,000	†.34	16.90	24.97	21.68
1918-1919	37,207,000	99	11,640,000	†.35	.....	.....	.....
1919-1920	33,960,000	91	†11,000,000	†.33	.....	.....	.....
Indian.	Acres.		Bales 400 lbs.	Lbs.	No. 1 Fine Oomra		
1913-1914	25,020,000	...	5,065,000	81	4.70	6.56	5.87
1914-1915	24,595,000	98	5,219,000	85	3.94	5.00	4.46
1915-1916	17,746,000	71	3,738,001	84	4.75	6.90	6.09
1916-1917	21,745,000	87	4,502,000	83	7.10	18.30	11.90
1917-1918	25,188,000	100	4,000,000	64	15.50	20.36	18.78
1918-1919	20,497,000	82	3,671,000	72	.....	.....	.....
Egyptian.	Feddans.		Kantars.	Lbs.	F. G. F. Brown		
1913-1914	1,723,094	...	7,684,172	444	8.15	10.45	9.44
1914-1915	1,755,270	102	6,490,221	369	6.30	8.30	7.34
1915-1916	1,186,004	69	4,806,331	406	7.50	11.90	10.42
1916-1917	1,655,512	96	5,111,080	310	11.60	31.50	21.56
1917-1918	1,677,310	97	†6,307,618	†375	†28.50*	35.50	30.97
1918-1919	1,261,000	79	†5,000,000	†367	.....	.....	.....
1919-1920	1,568,863	91	†6,000,000	†380	.....	.....	.....

†Estimated. *Sakel.

The position before the war was that for at least 10 years the demand for cotton has been increasing pretty steadily. I take that period not because it differed materially from what had been happening before, but because it was only during these 10 years that we had the international statistics of consumption and were able to make real comparisons. The world's supply had also been increasing, but with very marked fluctuations during that period. The condition was roughly this: that, although the crops were increasing, they were not increasing so fast as the world would have increased its consumption had the cotton been available The demand was greater than the actual supply, and the actual consumption was only limited by the supply. If you will at your leisure follow up the figures in Table No. 1, you will find an attempt to strike a balance of production and consumption during the 10 years before the war, and that brings out the fact that the consumption was simply going on, going up steadily, while the supply was fluctuating in the most marked way, and the result was that about every other year the actual consumption was in excess of that season's production. Since the war, of course, we have no corresponding statistics for the world's consumption or production, but we are able to carry on similar statistics for the American crop alone, and so bring out the same results. That second part of Table No. 1 brings out that the American crop was the dominating factor in the whole world's supply. The balance of its production and consumption is the same as the position of the world's crops every year, and that, as everyone knows, simply represents the fact that the American crop was the dominating part of the world's supply.

The position of the American crops for many years before the war had become extremely unsatisfactory in this way, that it had established a peculiar sea-saw movement of area in crops produced. A big area one year meant a big crop; that meant a low price; that meant next year a reduction of acreage, a shorter crop and high price, and so you had a regular see-saw movement of cotton, year after year, which was extremely bad for everybody concerned in the trade. On the whole, the price was rising steadily before

the war, due to the boll-weevil, the increasing cost of production, especially the labor cost through the belt. What happened during the war was simply an aggravation of what had been going on before. The early slump in prices at the beginning of the war caused a very serious reduction of the acreage in the following year. You will find the tables of this in Table No. 2. I would ask you to go through at your leisure and look it over. All the world's crops dropped heavily in acreage in 1915, and we have never made up the ground we lost in that year. We were getting in sight of it in 1918, and then when the armistice came along, there was another slump in the price of cotton which sent acreage down again this year, with the result that we have now had during the war, five bad crops in succession—a thing that practically never happened before in recent times. This is the position today. Cotton has gone up enormously, accentuated by the general inflation of word's prices. Cotton today, relative to other commodities is not dear. When I left England the position was that the price of cotton was relatively hardly any higher than the price of other commodities. The general level of prices in England had risen so extraordinarily that the cotton price was hardly out of proportion.

That is what happened during the war, and it brings us to consider next the question of the future. When we come to discuss the question of the world's future requirements of cotton, you must be clear by what is meant. It may mean three different things. First, the quantity of cotton goods that the world wants to use; second, the quantity of raw cotton that the world's mills can handle; third, the quantity of raw cotton that the world outside of America can afford to pay for. These things are not the same, but they are all involved in the question of what the world's requirements are going to be. Now to take them up in order. First, the quantity of cotton goods that the world wants is unlimited. They have never yet reached the limit of the world's demand for cotton goods. It is used for so many purposes, by so many people—by so many millions of people—in countries which have been greatly increasing their purchasing, like India and China, that it is not possible to get a limit on the quantity of goods that the world could use, if it could get them and could afford to pay for them.

At the present time the position, as the result of the war, is that the purchasing power of many of these countries is greater than it was ever before. With regard to the second point, the quantity of cotton that the world's mills can spin and weave is very seriously restricted at present, partly as a result of the war, and devastation of ourselves in Europe; partly as a result of the great movement for shorter hours in the textile industry everywhere. When I am discussing the question of the world's future requirements of cotton, I am not talking about next week or even this season; I am talking about the next five or ten years. In that time, surely Europe will recover to a very large extent; labor difficulties will be solved or gotten around to some extent, and I think it is safe to say that the world's consumption will not be permanently limited by the means of manufacture. That, I think, has never been the case.

The third factor is at present the most difficult—the question of payment. That question will be dealt with by a special committee here, and I have not time to deal with it in full. I can only say that I am convinced that these things will improve before very long, for one reason, because while all foreign countries are suffering from the handicap of foreign exchanges just now in bringing goods from America, they will very soon begin to retaliate, and get back more than they lose on the goods that they will ship into America. Take one illustration. It is now possible to import Egyptian cotton into this country more cheaply than into England. That will extend to other classes of trade, and the balance will in the course of time readjust itself.

My feeling is this, in conclusion, that the position today is very much the same as it was before the war, but whereas the world wants more cotton today than it is getting, just as it did before the war, an eleven-million-bale crop is nothing to what the world requires, and the world must have cotton in one way or the other. The world must have clothing, as well as food, and of all clothing, cotton is the cheapest. Cotton is the cheapest material for many purposes, and if the world is hard up it will use more cotton rather than less. Competition will force it on to cotton rather than other things.

In regard to prospects of increased supply, and, first, in regard to America. I am sorry to say, from all that I have seen on this trip, that I am forced to the conclusion, an increased crop in America is improbable. For 25 years before the war, the American acreage was increasing. During the war it stopped increasing and was going down. I wish we could hope that the increase could be resumed now and continued, but we cannot. I do not believe we are going to have any further increase. Personally, I shall be thankful if we see the pre-war record of about 37,000,000 acres touched again. I think it is doubtful if we will see that acreage maintained steadily. That means, that there is only one way in which we can get an increased crop in America, and it is a difficult way. It is better cultivation and increased yield per acre. It would not be difficult, for the average yield per acre is far too low. The average yield in America is less than 200 pounds. A hundred and fifty is likely to be the yield this year.

The question of restricted acreage. It will be nothing short of a calamity for America to restrict her acreage. There is no doubt about the demand for it. There is no need to restrict the supply in order to maintain the price.

I would like to run over the sources of supply. The largest country in the world next to America producing cotton is India, but she has only a small crop. There are prospects of increasing it, but it will be slow, because India is shattered, and it is difficult to move cotton. There are prospects of development of long staple cotton, meaning about an inch, but these things move slowly. In Sudan we can some day produce an increased crop, but it will not be for some years; five or ten years before we can make much progress, and in the meantime the supply has fallen off during the war, and it is not likely to touch pre-war figures for a year or two. The British Empire has done a great deal towards developing production in Nigeria, and in Mesopotamia, where we hope to see developments. We have proved that it is possible to grow cotton there, and I want to pay a tribute to the work accomplished by the British cotton-growing representatives. While we know we can grow cotton, it will not be in large quantities for some time. I am sorry to say that all of the work we have done in Africa, for nearly 20 years, and all the other powers of Europe has produced in no year 100,000 bales of cotton. You are throwing away more than that every year—more than we have been able to do in 20 years over there through the British Empire. With regard to other parts of the world, China, Russia, Persia, and all others, they could grow far more cotton, but it takes time. There are great obstacles to be overcome. There is no important prospect of any large increase from any other of these countries. So we must have a larger crop in America somehow. We realize that the first essential is the assurance that the grower will be reasonably remunerated for his crop. I am going to leave for Mr. Wannamaker to deal with the cost of production.

Just the other point, namely, the necessity for providing an adequate reward for those who are growing better cotton than others. That is one of the great difficulties in every part of the world—to secure a marketing system which will provide for improved staple, especially in small lots. Let me give you an actual case. A man in Texas, with beautiful one and one-half inch staple cotton got only 45c. a pound, and at that time, one and one-fourth inch style was selling at 52c. and all he could get was 45c. What sort of encouragement was that for anybody to grow better cotton? It seems to me this points to the necessity for a much better organization, both of the consumers and producers, and I should just like to emphasize that by one point in regard to the demand for long staple. The one thing that has struck me most in this country is your number of motor cars. We have not seen so many motor cars during the war, but coming back to New York I felt almost like a country cousin coming to the city. You have developed the motor business to such an extent that it must have an enormous influence on the cotton business. I tried to calculate it, and I estimate that it means a demand of about 500,000 bales of cotton. It seems to me that that points to the necessity for a much better organization for staple cotton. I put it forward in conclusion as the best argument that I know of for the hope that out of this conference will come permanent organization which will enable us to tackle such questions in a much more efficient and productive way than we have been able to do in the past.

Warehouse Receipts and Cotton Loans

By J. Howard Ardrey, Vice-President, National Bank of Commerce, New York City.

[Cotton financing in the South must continue to be localized under present warehousing methods. Mr. Ardrey points out that warehouse receipts constitute the fundamental security on the strength of which cotton loans are made. Therefore, to fully extend banking credit, warehouse receipts must possess, as far as possible, a uniform standard of quality and the lending banks should be fully protected in every way.—Editor Manufacturers Record.]

Cotton, by reason of its natural resistance to physical deterioration and its ready marketability, constitutes an exceptionally satisfactory basis for the extension of credit. Its important position not only among principal agricultural products, but also in our domestic industry and foreign commerce, renders its orderly and effective movement from plantation to finished product particularly essential. Hitherto, however, the lack of adequate credit facilities for financing the legitimate holding of cotton in the South due largely to a lack of sufficient warehousing facilities, have tended to prevent the orderly marketing of cotton, and to cause its dumping on the market almost as rapidly as it could be picked and ginned.

The situation has been potentially improved by the inauguration of the Federal reserve system, with its development of an open discount market and of the use of bankers' acceptances. Hitherto, cotton financing has been to a great degree localized. Its burden has been concentrated on the Southern banks with only limited assistance from the outside. Cotton requirements did not participate in the credit resources available in the general discount market. Such financing as was not done by the Southern banks in the immediate locality of the borrower has been cared for directly by banks in large centers in the East. Credits extended on the cotton have been by means of ordinary notes, held by the lending institution without being offered for sale in the open market. Such an offer to sell, indeed, would be regarded as an evidence of the weakness of the offering bank. As a matter of fact, such promissory notes, because of their lack of uniform quality, were not suitable for ready sale in the open market.

Bank acceptances do possess uniform high quality, and contrary to promissory notes, are intended to be and can be sold readily in the open market. Their employment, therefore, serves to equalize the heavy requirements of one section with the abundance of credit available in other parts of the country. Use of the bank acceptance is the only method by which open market money can be brought to the cotton industry in the South. But the advantages accruing from its use—more adequate credit and cheaper money—may extend to all of the parties interested in the cotton, whether grower, factor, exporter or spinner. Moreover, what is a practical necessity in the present international situation, the carrying of cotton in this country for the account of European spinners for forward shipment, rather than its exportation as rapidly as ginned, will be facilitated.

Under the provisions of the Federal Reserve Act, every member bank is authorized to "accept drafts or bills of exchange drawn upon it * * * which are secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples." A warehouse receipt covering cotton is one of the best and most acceptable forms of collateral if it is issued by a warehouse of established responsibility, but if there is any reason to doubt the reliability of the warehouse or its general business policy or the methods pursued in the issuing of receipts and the keeping of records, the receipts from the banker's standpoint are worthless as collateral.

The fundamental difficulty in the way of developing methods whereby credits may be freely available for cotton financing is the absolute lack of any uniform standard of quality in warehouse receipts. When a banker is asked to grant credit on commodities covered by railroad or ship bills of lading, he can readily form a judgment on the proposition because such documents to a very great extent are of a uniformly high standard. With respect to warehouse receipts this is not true. Unless a banker is located in the same community as the warehouse or has by close study become thoroughly familiar with local conditions, he is not in a position to formulate a reasoned judgment with respect to the loan.

In a measure, this lack of uniformity is the necessary result of the situation of the warehouses themselves. There must be, naturally, a wide scale between the receipts of the great State-controlled warehouses in the port of New Orleans and the receipts issued by a cotton-yard in a country town.

The Federal Warehouse Act does not in itself cover the whole warehousing situation any more than does the Uniform Warehouse Receipt Act. As the latter is concerned primarily with the form and content of receipts, the obligations assumed by warehousemen, and the conditions of negotiations and transfer, so the Federal Warehouse Act is concerned primarily with warehousing methods practices and conditions. The terms under which receipts are issued are essentially the same in both acts, but they are dealing with the situation from different aspects. In fact, the two laws are essentially complementary, and not conflicting. Were both laws generally effective, the problem of the character of warehouse receipts would be solved.

Having reviewed the several types of laws affecting warehousing, it becomes possible to consider the specific qualities which the warehouse receipt must possess to make it, from the banker's point of view, a suitable basis for the granting of credit, as well as the application of the laws of these points.

On receiving a request for a loan on cotton, if satisfied as to the borrower himself, the banker's first concern is with respect to the character of the warehouse in which the cotton is stored. The cotton must be in the hands of a reliable warehouseman Moreover, the warehouse must be independent of the borrower, so that the latter cannot, while the receipt is outstanding in the hands of a third party, obtain control over the goods covered by it. This matter is essential. Its importance is indicated by the fundamental rule adopted by the Federal Reserve Board of permitting member banks to accept against goods in storage only on condition that the warehouse is independent of the borrower. In a word, the banker's first consideration is that the cotton against which he loans shall be in the care of a reliable and independent concern, the business policies and practices of which are sound, and which afford adequate protection to the commodities stored.

It is, of course, impossible to compel reliability and responsibility by statute. The warehouseman's business, however, in view of the extent to which his certificates become the basis of national and international financing, is charged with public interest and may fairly be subject to public supervision and examination. Such supervision, which would be of material assistance in improving the business practices of warehouses is now lacking. The warehouse laws of Texas, as amended in 1913, do provide for State examination of conditions and for State regulation of records and receipts. Likewise, the co-operative warehouses authorized under Texas and Arkansas laws, and the State-operated systems of North and South Carolina and Georgia are publicly regulated. The number of warehouses thus included and the volume of cotton handled, however, is as yet almost negligible. With these exceptions, so far as can be ascertained, State laws do not provide for pubic supervision or regulation, nor does the Uniform Warehouse Receipts Act attempt to regulate the actual conduct of the warehouseman's business. As regards the vast majority of warehouses, methods and practices are left to the option of the warehouseman; and the laxity which frequently characterizes such methods and practices is a matter of common knowledge. The Federal Warehouse Act provides an admirable system of licensing and supervision of warehousing, the adoption of which generally would go far toward remedying the lack of uniform quality in warehouse receipts. As noted above, however, not more than half a dozen cotton warehouses are thus far included in this system.

With respect to the conditions under which the cotton is stored the situation is similar. So far as can be ascertained, there is only one State law which defines what a warehouse is. That is the law of Texas, but its provisions are too broad to afford

protection, as it even provides that a warehouse may be "A lot or parcel of ground enclosed with a lawful fence," the gates or entrances to which shall be kept securely locked at night. A banker surely is justified in desiring to know whether the receipts on which he is advancing cover cotton standing in such a warehouse or cotton adequately protected from rain, mud and depredations. The Uniform Warehouse Receipts Act limits the liability of the warehouseman to any loss or injury to the goods caused by his failure to exercise such care as a reasonably careful owner of such goods would exercise. This also is the common law doctrine. On this point, however, as on others connected with the general conduct of the warehousing business, receipts of concerns licensed under the Federal Act would afford the great assurance, because it stipulates that the warehouse must have proper storage facilities before receiving its license. That the warehouse is independent of the borrower is, of course, a matter which cannot be safeguarded by law. Both the Uniform Warehouse Receipts Act and the Federal Warehouse Act stipulate, however, that if the receipts is issued for goods of which the warehouseman is owner, either solely or jointly, or in common with others, the receipt must bear on its face the fact of such ownership.

The second point on which the lending bank desires assurance is that there actually is cotton behind the warehouse receipt; that cotton was actually deposited in the warehouse before the receipt was issued; that it will not be delivered except on surrender of the receipt; that when the receipt is surrendered it will be cancelled beyond possibility of re-issue; and that duplicates, if issued, will be plainly marked, and will be issued only on proof of loss or destruction of the original, and then only provided the recipient furnishes adequate security for the protection of innocent holders of the original.

A receipt which states that the delivery of the cotton is contingent on the surrender of the receipt "or a duplicate" is valueless as collateral, because a bank, as respects the average warehouse, would have no way of knowing a duplicate had been issued. On these points, the Uniform Warehouse Receipts Act makes the issuance of a receipt for goods not actually received, or the issuance of a receipt containing false statements, or the delivery of goods without surrender of the negotiable receipt criminal offenses. It also makes criminal the issuance of a duplicate receipt which is not plainly so marked, although it does not, as does the Federal Warehouse Act, require the furnishing of security by the person to whom the duplicate is issued. Under the Uniform law if the warehouseman fails to take up and cancel a negotiable receipt on surrender of the goods, he is liable to any holder of the receipt in good faith for failure to deliver the goods to him. Furthermore, the law provides that if a part of the goods is delivered, either the receipt must be plainly marked or cancelled, and a new one issued to cover the balance of the goods still in storage.

With respect to States which have not adopted the Uniform law, in some there are statutory prohibitions and penalties covering these points, but in other States no statutory provisions have been enacted regarding them. Furthermore, the laws of certain States which have not the Uniform Act, for instance, South Carolina, permit the delivery of goods by a warehouseman without surrender or cancellation of receipts, if the property is claimed or taken under legal process. On this point, the Uniform Warehouse Receipts Act stipulates that when goods are delivered to a warehouse by the owner, are by any one whose act would bind the owner, and a negotiable receipt is issued for them, the goods cannot be attached or levied upon unless the receipt is first surrendered. In no case is the warehouseman compelled to deliver the goods until the receipt is either surrendered or impounded by the court.

Third, the bank lending against receipts must have assurance as to its title to the cotton pledged. If there are landlord or labor or other liens outstanding which take precedence over its own rights as holder of the receipts, the bank certainly ought to be aware of the situation. One of the most serious difficulties which banks, particularly those in the North, which are not in close local touch with the situation have found in the way of loaning more freely against cotton preceipts is that they have never been able to ascertain exactly what title to the cotton they have.

As long as priority of landlord and labor liens is recognized there seems to be no practical method by which absolute and unimpeachable title to the cotton can be vested in the holder of the warehouse receipt. The North and South Carolina laws providing for State-controlled warehouses, it is true, attempt to meet the difficulty by stipulating that the "receipt carries absolute title to the cotton," making it the duty of the manager of the warehouse before accepting cotton for storage to ascertain whether there are any crop mortgages or rent or labor liens outstanding against it.

In general, however, it is true that the holder of a receipt is subject to prior liens, and uncertainty as to their nature and their extent increase the banker's hesitancy in accepting receipts as collateral, even though in practice the actual losses from defective title by reason of such liens have been comparatively small.

The Uniform Warehouse Receipt Act provides that a person to whom a receipt has been negotiated acquires such title as the person negotiating the receipt to him had, or had ability to convey to a purchaser in good faith, and also such title as the depositor had, or had ability to convey, as well has the direct obligation of the warehouseman to hold possession of the goods for him, according to the terms of the receipt, as fully as if the warehouseman had contracted directly with him. The act endeavors to secure to the holder at least the knowledge or the nature and extent or prior liens by making a criminal offense for a person to deposit goods on which there is a lien or mortgage or to which he has no title, taking therefor a receipt and negotiating it for value with intent to deceive and without disclosing his want of title or the lien or mortgage. The laws of Arkansas and Texas authorizing co-operative warehouses provide that when cotton grown on rented or leased ground is tendered for storage in such warehouses, the receipts must be issued jointly in the name of the tenant and landlord, showing their respective interest unless the person tendering the cotton for storage presents authority from the other party interested, requesting the issuance of the receipt in the name of the one or the other.

In this connection, the lending bank should have specific information with respect to the warehouseman's claims on account of any advances to the depositor or charges other than the usual storage charges. The Uniform Warehouse Receipts Act as well as the Federal Warehouse Act stipulate that if the warehouseman claims a lien on account of such advances, the amount thereof must be stated on the receipt, or if the precise amount is not known to the warehouseman at the time the receipt is issued, the fact that advances have been made is sufficient. The banker, however, should have specific information on this point, and must ordinarily reject receipts which are issued subject to "all advances" unless the full amount of the advance is stated on the receipt.

In the fourth place, the receipt should afford the bank some reasonable basis for estimating or checking the value on cotton which the loan is made. For this purpose it is highly desirable that the receipt should specify not only the number of bales and their weight, but should indicate likewise the grade or class and condition in which the cotton was received. It is not unusual for warehouse receipts to specify grade, nor is this required by the Uniform Warehouse Receipts Act, although it is required of warehouses licensed under the Federal law. The co-operative warehousing laws of Texas and Arkansas and the State-operated system of North Carolina also provide for a statement of grade on the receipt. Georgia and South Carolina laws providing for State-operated warehouses also require this statement, but guarantee it only in favor of persons who either lend money or buy cotton through their State warehouse commissioners. The receipt, of course, should afford means of identifying the cotton which it covers, and for this purpose should include the name and location of the warehouse, the consecutive number of the receipt itself, and the mark and tag numbers of the bales of cotton covered.

Finally, the lending bank should be covered by insurance to the full market value of the pledged cotton. With respect to insurance, the Uniform Warehouse Receipts Act makes no provision. Certain State laws, such as that of South Carolina, provide that the warehouseman need insure the stored cotton only when requested by the depositor. Other State laws, such as that of Georgia, provide that the cotton must be insured unless the warehouseman is specifically requested not to insure. The latter provision is contained likewise in the Federal Warehouse Act.

With respect to the character of the insurance, it is desirable from the lending bank's point of view to have insurance effected

by means of specific policies covering the pledged cotton, issued to the owner with the loss payable clause to the lending bank as its interests may appear. Or the warehouseman may take out specific policies and assign or transfer these to the owner of the goods, thus affording adequate insurance in the owner's name covering the cotton pledged to the bank. The ordinary blanket policy taken out by a warehouseman to cover all the goods in storage affords inadequate protection. All such policies contain so-called co-insurance clauses, whereby the insuring company becomes liable only for that proportion of the loss which the amount of insurance bears to the actual value of the goods stored. With respect to the average warehouse, there is no method by which a bank can keep informed of the amount of insurance carried or whether the commodities in storage are insured to their full market value.

In conclusion, permit me to draw together several points which have been under discussion. Warehouse receipts constitute the fundamental security on the strength of which cotton loans are made. The freedom with which such credits are granted must depend on the character of the receipts securing them. To form a suitable basis for the free extension of banking credits, whether by means of bank acceptances or in any other manner, warehouse receipts must possess, as far as may be, a uniformly high standard of quality similar, for example, to that of railroad or ship bills of lading.

The banker who is formulating a judgment with respect to loans on cotton receipts must first of all take account of the responsibility of the issuing warehouses and the protection from damage which it affords the stored cotton. He must ascertain also that it is independent of the borrower so that the latter is not in control of the goods pledged. Further, he desires assurance that the receipt actually represents commodities stored, and information with respect to any circumstances which would affect his title to the cotton. In addition, the receipt should afford a means of identifying the specific cotton pledged and a means of estimating or checking its value. Finally, the lending bank should be fully protected by specific insurance covering the cotton on which its credit is granted.

Some such method of standardizing the quality of warehouse receipts would seem to be the only method by which the cheap money of the open discount market can be made available for cotton financing in the South. As long as present conditions survive, cotton financing can be undertaken only by banks which are located in the immediate community, or which by careful study are in close touch with the local situation and are thoroughly familiar with the particular borrowers and warehousemen. In a word, cotton financing in the South must continue localized. Its burden, instead of being distributed over the country as a whole, is concentrated on a limited of banking institutions. The result is an inadequate supply of credit and high rates. With standardized warehouse receipts, on the other hand, banks generally could safely undertake to accept on their security and these acceptances, readily salable in the general discount market, would assure abundant credit at minimum rates.

Stabilizing the Price of Cotton

By Theo. H. Price, Editor of Commerce and Finance, New York City.

[Mr. Price believes that it is impossible to stabilize the price of cotton from year to year for the reason that we have not yet reached a point at which the law of supply and demand and natural processes of commercial distribution can be set aside. While taking this view, Mr. Price is not oblivious to the hazard resulting from abnormal and unreasonable market fluctuations, and says that those who deal in cotton, in spite of themselves, are compelled to become gamblers or suspend their business entirely. He advocates the exclusion of inexperienced speculators and the issuance of licenses to those who could furnish evidence that they are qualified to engage in cotton buying, basing his view on the fact that bankers are licensed and are required to furnish evidence of their solvency before they are permitted to engage in business. He further advocates protection against what he calls "the speculative vagaries of the uninformed mob," by broadening the method adopted during the war of limiting daily fluctuations to 200 points per day and to impose similar limits upon the price at which contracts may be made during the week or month.—Editor Manufacturers Record.]

To most of you I am known as a speculator who made and lost money through the very instability of the market for whose stabilization I am presumably expected to offer a plan.

And so I ask those among my audience who know me chiefly as a cotton speculator to try and forget my notoriety in that role while I attempt a serious consideration of the problem that your committee has asked me to consider.

In attacking it I shall assume that I am not expected to find a way to attain the unattainable, for all of you will, I take it, agree with me that an absolute stabilization of the price of cotton from year to year, or even from day to day, is impossible. That nature abhors a vacuum, and that an absolute mean is impossible, are maxims of physics.

In the world of economics the instability of things mundane is even more apparent than it is in the world of physics, and it is hard to think of anything that is affected by a larger number of factors that are in themselves variable than the price of cotton.

It is said that the co-operation of at least 10,000 persons is necessary in the provision of even the simplest dinner, and when we come to consider the price at which a yard of Pepperill Drills should be sold to the Chinese consumer in order that all of those who have been concerned in the production of the goods or the things required in their manufacture may be properly compensated, we find ourselves confronted by a problem that is almost infinite in its ramifications.

The value of the land upon which the cotton was grown, the weather, the price of fertilizers and their component elements, the cost of the labor required for its cultivation, and, in turn, the cost of the food, raiment and shelter with which the agricultural laborer must be provided, the cost of schooling his children, the taxes he pays, the rate of interest charged for any advances that the farmer may require, the varying transportation rates which must be paid in carrying the cotton from the fields to the mill, the foreign exchange market, the wages paid the mill operatives, the conditions under which they live, the state of trade and the profit to which each of the commercial intermediaries whose services are necessary in the distribution of the cotton and the goods made from it is entitled, are only a few of the innumerable factors that would have to be considered in attempting a scientific determination of a fair price for cotton or cotton goods.

Those of you who have attempted, as I have, to arrive at a scientifically accurate computation of the cost of producing cotton will appreciate the utter impossibility of effecting a meeting of minds upon a subject concerning which both experience and opinion are so divergent.

I shall not, therefore, attempt to discuss or even to suggest an absolute stabilization of cotton prices. Even if it were theoretically possible, which it is not, the deductions to be empirically drawn from the experience of Brazil in the attempted valorization of coffee and that of the Secretan Syndicate in attempting to stabilize the price of copper would convince us that any attempt to establish and maintain a fixed value for one of the world's greater staples is doomed to failure. Even our own great Government has found the path that it attempted to follow in stabilizing the price of wheat during the war an exceedingly thorny one, and it is, I think, exceedingly doubtful whether such a policy will ever again be adopted, however grave the crisis may be.

At 30 cents a pound for lint cotton and $70 a ton for seed a bale of cotton, with the seed derived from it, is worth approximately $185. This means that a world crop of, say, 20,000,000 bales would be worth $3,700,000,000 in its raw form and about three times as much when it is converted into the manufactured goods. These figures will give some idea of the impossibly large capital that would be tied up in any scheme of stabilization that

involved the purchase of a substantial portion of the cotton production when it was below the mean of fair value that might be agreed upon if an agreement upon a question so involved is indeed thinkable.

But even if the capital were obtainable the dislocation of the world's financial and economic machinery that would result from an interruption in the movement of cotton makes any program that looks toward a retardation in the movement of cotton from the producer to the consumer impossible.

Throughout the world, and particularly in America, the maturity of nearly all our commercial paper is synchronized to meet the maturity of the crops, and billions of obligations now become due during the harvest period upon the theory that the money for which crops are sold will then be available. If this adjustment were seriously disturbed our banking machinery would break down and the supply of credit with which the fields of commercial enterprise are now irrigated would soon be exhausted.

I could go on almost indefinitely explaining why it seems to me that any scheme to stabilize the price of cotton from year to year is utterly impracticable, and while there may be some theorists who will combat this view, I am inclined to think that most of the world's hard-headed men of business will agree with me that we will never reach a point at which the law of supply and demand can be suspended or the natural and normal processes of commercial distribution set aside without creating an artificial situation that will ultimately collapse, to the ruin not only of those who have devised and supported it, but to the destruction of the entire economic fabric that has been evolved by years of experience.

Assuming that this conclusion is accepted, let us next inquire whether it would be possible to fix a fair price for the production of cotton in any given 12 months and to maintain that price without variation by voluntary co-operation or financial compulsion.

In order to reach an intelligent conclusion as to what would be a fair price for the cotton production of any one year or any particular 12 months it would, in the first instance, be necessary to equate the relation of supply and demand during that 12 months. In order to do this we should have to ascertain, first, the size of the crop; and, second, the world's requirements. This statement will, I think, convince almost anyone that has ever made a crop estimate or attempted to forecast the probable consumption, that the problem is utterly unsolvable, or, as I prefer to say, insoluble.

I once offered a prize to the cotton merchant who could truthfully affirm that he had never made a crop estimate. No one was able to qualify as a winner, and those of us who have ever attempted to forecast the size of even the American crop will realize the utter impossibility of coming within a half a million bales of the final outturn, except as a matter of pure luck. When it comes to determining the size of the East Indian or Russia crop 12 months, or even six months before their maturity, comparative accuracy is unthinkable except as a matter of mere chance. It is even more impossible to anticipate the consumptive requirements correctly. They depend upon an indefinite variety of factors, many of which are not even known when they should be considered.

Suppose, for instance, a committee of the most clairvoyant merchants, farmers and spinners that could be appointed undertook today to determine what would be a fair price for the crop of 1919-1920. Do you think that any agreement upon the question could be reached or that, if it was reached, it would not speedily be attacked in Congress and every other form in which self-interested opinion could find expression? I do not; and, being naturally of a timid disposition, I am unwilling to even suggest a plan for reaching a conclusion that would immediately provoke vituperative dissent in every country of the globe.

I would not, however, have you understand that in thus expressing myself as to the impossibility of any grandiose scheme for stabilizing the price of cotton, I am oblivious to the hardship and hazard that result from the market fluctuations with which the trade has had to contend during the past three or four years When the price of cotton as reflected in the price of future contracts fluctuates, as it has recently, two cents a pound in a day, intelligent business is, I admit, absolutely impossible, and those whose function it is to deal in cotton, whether as purchasers, merchants or manufacturers, are, in spite of themselves, compelled to become gamblers or to suspend their business entirely. That such fluctuations have discredited the business of the cotton merchant and impaired his credit, there is no denying. His occupation has come to be regarded as extra hazardous, and those who are expected to lend him money are perforce compelled to share the hazards that his operations involve. As in the case of the insurance company that writes a policy upon an extra hazardous risk, they demand a higher rate of compensation which unnecessarily burdens a business that is unfairly classified as one that involves possibilities of loss that most men prefer to avoid.

Before considering whether this hazard can be eliminated, it is perhaps in order that we should inquire why it exists. In attempting to answer this question I am afraid that I may tread upon ground that will be dangerous, but I must, nevertheless, be frank.

The extraordinary fluctuations that have of late been so frequently recorded in the future markets are, I think you will agree with me, in most cases unreasoning and unreasonable. They are due to the fact that the facilities for speculation which are offered on the exchanges where futures are bought and sold make it possible for so many uninformed persons to buy and sell cotton. The business of speculation is at best an exceedingly hazardous one. There are but few, if any, who retire from it with a fortune unless they happen to die opportunely, and I have long been of the opinion that the State ought to exclude the inexperienced from a business so hazardous and issue licenses to speculate only to those who could furnish evidence that by education and temperament they were qualified to engage in operations that may threaten not only their own financial solvency, but the economic welfare of a large portion of the population.

I realize, however, that it is exceedingly unlikely that such a counsel of perfection will ever be accepted, although it is true that in most States bankers are licensed and are required to furnish evidence of their solvency before they are permitted to engage in a business whose mal-administration might work the ruin of those with whom they deal. We also require that doctors, druggists, dentists and even veterinary surgeons and chauffeurs should be specially qualified for the service that they offer to render before they are permitted to practice their professions, and the time may perhaps come when something of the same sort will be insisted upon in the case of the speculator. I doubt, however, if it has yet arrived, and since we must await its coming, it devolves upon us, meanwhile, to take counsel of expediency and consider in how far we can protect ourselves against the speculative vagaries of the uninformed mob to whose fatuous desire for easy money the erratic markets with which the trade has recently had to deal are largely due.

In looking for a solution of our problem in this direction, we are, it seems to me, somewhat helped by the experience of the futures exchanges themselves during the fitful years of the war. When they were reopened after the suspensions of operations which had been made necessary by the first impact of the great struggle, it was found expedient to limit the daily fluctuations. In New York, if my memory is correct, the limit at first imposed was 300 points or three cents a day. Transactions at more than 300 points above or below the closing quotations of the previous day were prohibited, and the range was subsequently reduced to 200 points per day, this limit, as I understand it, being still in force.

It occurs to me to ask whether conditions can be so changed within 24 hours that cotton will be legitimately worth two cents a pound more or less today than it was yesterday. Frankly, I doubt it, and it is only by an appeal to the excited imagination of the uninformed speculator that a state of mind can be brought about in which he would be willing to sell cotton for two cents below the price obtainable for it yesterday, or to buy it at two cents above the price at which it could be purchased at 3 o'clock on the preceding day.

If we grant that any change in conditions which can occur in so short an interval must be more imaginative than real, is there any reason why the shock absorber which the exchanges have found it necessary to provide by imposing the limits now in force should not be so tightened up that it would oppose more resistance to these hysterical convulsions and thereby minimize the harm that those who are subject to them can do themselves and the public? If it is expedient to impose a limit of 200 points or less within which the market may fluctuate in any given day, would it not be wise and logical to impose a similar limit upon the price at which contracts may be made during each week or month? Suppose, for

instance, that the exchanges should agree to delegalize transactions that were made at a price more than 100 points away from the closing of the previous day or 150 points away from the closing of the previous week, or 250 points away from the closing of the previous month, would anyone be seriously harmed, and is it not true that a great many people would be benefited by the more deliberate and gradual operation of the law of supply and demand which would probably be thus insured?

It is said that if they are given time, men can adjust themselves to almost any change in conditions that may be necessary. We cannot hope to escape the necessity for change. The important thing is to provide ourselves with time in which to make the necessary changes deliberately, and since in my thought upon the subject I have endeavored to deal practically with conditions rather than with theories, I am submitting for your consideration the only practicable remedy that I am able to suggest for the evil with which we have all of us to contend. It is, I admit, but a partial and a very imperfect remedy, but men progress toward the ideal only step by step, and life is one long succession of compromises, each one of which, if intelligently accepted, will open our eyes to the benefits of further agreement through further compromise.

International Trade in Cotton Yarns

By Dr. Thomas Walker Page, Chairman, United States Tariff Commission, Washington, D. C.

[In his address Dr. Page sketches the substance of a report prepared by the Tariff Commission on the cotton yarn situation. The quantity of cotton yarns handled in International trade in 1913 was about 750,000,000 pounds, and of this great total nearly one-half was imported by China, mostly from British India and Japan. Although the United States is the greatest producer of yarn in the world, measured in volume, it is insignificant as a trader in yarns. This country produced three times as much cotton yarn, or 2,150,000,000 pounds, as there was movement in International trade in 1913. Of this quantity we exported only about 1 per cent. During the fiscal year just ended our exports reached 19,000,000 pounds, but as compared with the world's trade of 750,000,000 pounds, Dr. Page says our exports are negligible, and as compared with our production they are practically invisible.—Editor Manufacturers Record.]

The United States Tariff Commission was created by the Government as an investigating body. We are to do what we can, find out the situation in the United States that bears upon the prosperity in trade of this country, and, so far as that prosperity has its effect upon the industries of this country, and the information which we collect is to be made available to Congress and to the President, not only with a view to enabling Congress to fix the duties upon imported goods, but also to enable Congress and the President and the Department of State to determine the policies of this country, with respect to commercial matters, and in its relations with other countries, so as to protect our own welfare and at the same time do full justice to the balance of the world.

Now, conditions have been so uncertain and so chaotic in this world of ours that we have not as yet made all of the investigations that it was contemplated by Congress we should make. We do not propose to use our time in purely academic researches, but rather to undertake investigations which will be fruitful. We wish to confer with the business men of all parts of the United States and with business men from abroad, to determine what investigations would be fruitful and what investigations would be unnecessary. We have, however, made some tentative beginnings and we have tried to play safe, but at the same time to provide useful information, in the subjects that we have selected for investigation.

Among other matters that we have looked into has been the subject of international trade in cotton yarns. There is at present in the Government Printing Office, and will be ready for distribution within a week, a document prepared by the Tariff Commission on the cotton yarn situation, and any member of this conference who wishes to procure that report can get it by writing to the Superintendent of Documents, in Washington, along with a number of other reports that the commission has made.

It is my duty to indicate very briefly here today what the substance of that report is. The importance of the international trade in cotton yarns is sufficiently indicated by the fact that before the war, in the year 1913, the value was doubtful, but the quantity of yarn reached the enormous total of 750,000,000 pounds. That much cotton yarn entered into the trade of the world and was imported into some countries and exported from other countries. It is quite well known to all of you what the chief exporting countries were and what were the chief importing countries. It may possibly be of interest to you, however, to know that China was the principal country of the world in the importation of cotton yarns. Nearly one-half of that great total was imported by China alone. Some 350,000,000 pounds of cotton yarns found their way to China. Nearly all of it was used in the hand-loom industries of that country. The greater part of it was comparatively coarse yarn, imported in large part from Japan and British India. In addition to China as an importing country, there were some 25 other countries that imported between 10,000,000 and 100,000,000 pounds of cotton yarn—most of them nearer 10 than 100,000,000. These countries were in no inconsiderable degree the highly developed countries of Europe. Germany was a very considerable importer of cotton yarns. France imported no little; Switzerland and the Scandinavian countries imported a certain amount of yarns. They did so for the very obvious reasons that there had been developed in other countries specialties. Particularly, in England, it had been developed in a high degree. High counts of yarn in England had been carried further than in any other country, and some of the finishing processes for preparing cotton yarns had been highly developed in some of the countries of Europe, notably France and Germany, as well as to a lesser extent in some of the other nations in Europe. Therefore, these buying nations found that it was cheaper and better for them to buy some of the varieties of yarn they needed than to buy the product raw and make it. In addition to the highly developed countries, there were those of some industrial development, and particularly whose development was one-sided to the extent that they were weaving countries, but only to a slight extent spinning countries, such as the Balkan States, and some of the countries of South America. There, of course, was China, which is an example, with comparatively little spinning but a great amount of weaving. Now, of course, of the exporting countries the United Kingdom leads. Of the 750,000,000 pounds which entered into international trade, Great Britain exported 210,000,000 in round figures. Next to Great Britain came British India, with approximately 200,000,000 pounds. Next to British India came Japan, with an exportation of 180,000,000 pounds. These three countries, the United Kingdom, British India and Japan—the three of them together—accounted for approximately 600,000,000 of the total of 750,000,000 pounds which entered into international trade. Gentlemen, it is interesting to note that while those three countries were so nearly equal to each other in the bulk of their exports, in the value there was a wide difference.

Great Britain and the United Kingdom is the home of the fine yarn spinning of the world. British India and Japan, before the war, spun comparatively little fine yarn, their output being confined mostly to the coarser counts, better adapted for the purposes to which the yarn that went into China was destined to be used. There were no other countries that exported large quantities of yarn. There were six countries in addition to these that I have mentioned, that exported each between 10,000,000 and 15,000,000 pounds. There was some exportation from Germany and some from France, and there was some little from Italy, but as compared to these three, the great yarn spinning countries, the others fade into insignificance as exporters; and it is startling to realize the negligible extent to which the United States entered into international trade in yarns, either as an exporter or an importer. The war brought great changes in the situation—changes that

were not so great, so far as the relative importance of exporting and importing countries is concerned, as might be supposed, but changes of great significance by reason of the possibility of their future further development and their possible permanence. I would like to say a few words about the position of this particular country of ours in the matter of international yarn trade. It is a curious fact that although the United States is the greatest producer of yarn in the world, measured in volume and poundage, she was insignificant as a trader in yarns. The figures that I mentioned just now were large, of course, which sum up the totals of international trade before the war. Seven hundred and fifty millions of pounds of yarn is a large amount, but, gentlemen, in this country during that year we produced three times as much cotton yarn as there was moved in international trade. In other words, our production exceeded 2,150,000,000 pounds of cotton yarn. That was our production. Now, how much did we export? In the five years before the war, our annual exportation of cotton yarns was approximately 3,000,000 pounds—a negligible fraction of 1 per cent. of our production. Now, what changes in the matter of the exportation of yarns were occasioned by the war? The changes have been relatively small. We have acquired practically no new markets. We have simply expanded the markets we had before, and the volume of our exports has risen from 3,000,000, in 1918, to 15,000,000 pounds. During the fiscal year just closed, our exports amounted to 19,000,000 pounds. Now, 15,000,000 and 19,000,000 are large, when compared to 3,000,000, but as compared with 750,000,000 the figures are still negligible. As compared with our production, why, they are practically invisible. Such as they were our exports went, in the main, to Canada and to South America, and to both of these regions our exports showed some growth during the war, largely being due to the difficulty of the shipping situation—the difficulty of getting from the United Kingdom and the other sources of supply that had formerly been drawn upon by both countries. The quality of the yarn exported showed practically no difference. It was possibly a little finer. We sent a little finer finished yarn to Canada and a little finer to the Argentine and to Uruguay. The bulk of our exports to Brazil was somewhat greater than before the war. To the La Platta country we increased our exports. Chile took a little more, but nearly all of it was under No. 30—coarse yarn—a little as fine, or as high as 80 went to Canada and to the Argentine. There was but very little, however—about 40 and practically the greater proportion of it below 30. Nearly all of it was intended for the simplest kinds of fabrics—ducks, hosiery and underware—and it still forms the great bulk of our exports. We have had no regular trade connections with South America except in rare instances, most of the yarns moving to South America being handled through general exporting houses, such as W. R. Grace & Co. and some other houses. They bought some yarn in this country and sent it to South America. Our spinners have not interested themselves in increasing their export trade. At any rate, they have not been active as yet in organization and seeking this trade. The home market is sufficient and it is good enough for the present.

Whether time will indicate to them the value of that market and the advisability of taking steps to secure a foothold there, remains to be seen.

As to our imports of cotton yarn, from a tariff standpoint, that is naturally an important and interesting subject—from a tariff standpoint more so than the exportations, of course, but we must bear in mind that this is a warm morning and any discussion of cotton yarn imports from a tariff standpoint is hardly proper here. I would like to say, however, that we imported before the war about twice as much cotton yarn as we exported, both, however, being relatively small and insignificant, exporting some 3,000,000 and importing some 6,000,000 or 7,000,000 pounds. When the war began in the year 1914—the calendar year 1914 and, the last half of it, and in the year 1915, we showed some diminution in our imports. In 1916 they were practically as great as before the war, and in 1917 they had grown to about 10,500,000. That is the peak of our importation of cotton yarns—10,500,000 pounds—that is what we imported in 1917. It was greater than in any other year in the history of the trade. Ten and one-half million pounds would be a great deal of yarn if we had to transport it from one point to another point here in New Orleans on a morning like this, but it is very small, as compared to the amount that we manufacture—10,500,000 as compared with 2,175,000,000 is negligible. In 1917 the peak was reached. In 1918 it had fallen off once more to about 6,500,000 and for the fiscal year 1919 our imports of cotton yarn were only a little over 2,000,000. We have almost ceased to import cotton yarn. With a return once more of transportation facilities to normal, when the situation in England has been more firmly stabilized, when the price that it has been necessary for Great Britain to pay for cotton once more make it possible for Great Britain to put her yarns on the market, at prices comparing favorably with other parts of the world, it is possible, and I think we should all be very glad for international trade to be extended to some extent. It is possible we shall once more be able to get from Great Britian in quantities that we got before the war of specialties. Now, these figures are not new. They are probably known already to a large percentage of you, but one thing the Tariff Commission was especially interested in was to know what form the yarn eventually took—for what purpose it is manufactured. Of course, everybody knows that the lace and lace curtain industry buys a considerable quantity of yarn abroad, but not all of it was for lace-making. We were interested in finding what disposition was made of these imported yarns. We found there were 21 industries using a certain amount of cotton brought from abroad. These may be summarized in a few groups, the lace and lace-curtain industry was a large consumer. Then we have bought abroad mixed fabrics—mixed silks and mixed woolen goods fabrics. This accounts for about one-fourth. Then we find the knitting yarns for about one-fourth, and a very remarkable change has occurred in another direction in the importation of knitting yarns. Before the war we imported considerable for hosiery and underwear knitting. They have almost disappeared, but a new variety of knitting yarn has appeared and that is yarn used in cotton or what is known as chamoisette gloves. It is a new industry in the United States. The chamoisette industry was practically a monopoly in Germany before the war. There is now considerable activity in that line in the United States. However, we are still under the necessity of importing, as Germany herself is compelled to look for the greater part of those yarns from Great Britain. She makes a yarn best adapted to the manufacture of cotton gloves. Then there were some mercerized fabric importations, perhaps the most interesting being confined to yarns for insulation purposes.

The demand for this was comparatively small before the war, but due to the great expansion of the electrical industry and the use of electrical appliances in the aeroplane industry made it necessary for us to buy a large amount of this yarn abroad. We have made and we do make a great deal of yarn, especially adapted to insulation purposes, but that branch of the industry could not meet the demand of this country during the war. I should like to go into a more detailed account of the uses of these yarns, but time is not available, nor is the weather adapted to it. I may say, however, that the principal source of supply from which we have imported these yarns was Great Britain. She made them all. At present, what little yarn we do import comes from the United Kingdom. We have always imported more from her than all other countries combined. She sends some of practically all kinds that we import, and she sends all of some kinds that we import. Next to Great Britain, before the war, was France, and then came Germany. We imported from Germany a considerable amount of cotton yarn, but that yarn was for a considerable part finished in Germany after having been spun in the United Kingdom. Perhaps the most interesting character of these German yarns was that used for toweling, and to some extent woven labels. This particularly attracted attention because of the brilliant Turkey-red that could be given in Germany, and which could be made more permanent and satisfactory than could be done anywhere else. The Turkey-red yarns before the war came in the main from Germany. Since the outbreak of the war, and the cutting off Germany's supplies, we have been securing some from Glasgow, but the manufacturers and the purchasers of the toweling maintin that the Turkey-red yarns that are now sent from Glasgow are not as satisfactory as those we formerly got from Germany. Next in importance to the Turkey-red yarns came the blue-black yarns used largely for hatbands. Germany could dye—she had the nack of using this blue-black dye just as she had in the turkey-reds and she used them to advantage. Then we imported some also for silk hosiery purpposes; that is, mixed with cotton for the heel and toe. Those yarns we bought from Germany were, in the main, imported

because of the color Germany could give them. Another minor, but not uninteresting kind of yarn that we got out of Germany was what is known to the trade as iron yarn. It resembles fine horsehair, and it is used generally for upholstering purposes, though I am also told that the darker part of the southern part of the population purchases considerable quantities of it for filling up and increasing their natural head-dressing. For those yarns that we imported from Germany mainly we have not as yet found satisfactory substitutes, but no doubt means wil be found. Whether that trade with Germany will be renewed remains to be seen.

Next to Germany comes Switzerland, which sends large amounts of yarns for embroidery purposes and for various other lines of consumption. The embroidery industry was very well established there, and as a matter of fact Switzerland herself imported very large quantities for embroidery purposes. She could give certain finishing to those yarns the other countries did not seem to be able to duplicate.

From France we got a certain amount of tightly-spun yarn used for voiles and similar fabrics.

Those were the countries of chief importations.

Of the cast yarns, which are a large variety, and used chiefly for mercerizing processes, there are also some importations. This casting process can be done in England better than in any other country, and, strange as it may seem, they do it there for nothing for the reason that the casting of the yarn raises the count. You take a certain count of yarn and you cast it and it reduces the size of the yarn to some extent, thus raising the count, and, by raising the count, it brings a better price, and so apparently you are getting your casting done for nothing. We do not do it for nothing, or cannot do it for nothing here, and the casting is rather an expensive process for us. Then, we import a great amount of polished yarn from England. We do some polishing here, but apparently we cannot polish it as well as they do abroad, chiefly for the reason that it is a very laborious process to do it, and satisfactory labor costs too much to make it worth while to do this polishing in the skein in this country as it is done abroad. We send some into Canada. We use it for shoelaces and for some purposes for which a polished yarn is adapted, but enarly all of it is imported.

Mercerizing, which once played an important part in the importation of yarns, now plays no part at all. We mercerize in this country as cheaply and as effectively as it is done in any other part of the world.

As to the other yarns of which I have spoken requiring peculiar processing or polishing or coloring, by reason of the processes required, there is relatively an insignificant attempt now to produce them here.

The paper which I referred to in the beginning, of the Tariff Commission, as I said, is now in the hands of the printers in Washington, and will be ready for distribution within a very few days. It covers this subject fully, and to those of you who are interested, I suggest that you write for it. I thank you for this opportunity to call your attention to that report.

The New Sources of Cotton Production

By Dwight B. Heard, Phoenix, Ariz.

[Great strides have been made in the last few years in growing cotton in the arid sections of the Southwest, where the American-Egyptian long-staple varieties have been developed. Approximately 50,000 bales of Pima American-Egyptian long-staple cotton will be raised in Arizona this season, practically 95 per cent of it being produced in the Salt River Valley, and about 1000 bales may be added from California.

Mr. Heard tells of the early efforts to develop a long-staple, highly-productive cotton which would be suitable to the country, and of the success finally achieved by those who had faith in the possibilities for growing cotton in the dry regions of the Southwest by the aid of irrigation.—Editor Manufacturers Record.]

In considering the new sources of cotton production I shall confine myself largely to the long staple American-Egyptian type, which has been developed during the last few years in the Southwest to such an extent that it has become a very appreciable factor in the cotton trade.

There are certain fundamental conditions which must prevail to successfully grow American-Egyptian cotton; an unusually long growing season, freedom from boll-weevil and the assurance of an absolutely certain supply of water for irrigation.

Last season the production of American-Egyptian cotton in the United States was as follows on the basis of 500-pound bales:

	Bales.
Salt River Valley, Arizona, adjacent to Phoenix, Arizona	34,300
Gila Valley, Arizona, adjacent to Florence, Casa Grande, and at Sacaton Indian Reservation	1,200
Colorado River Valley, Arizona, adjacent to Yuma, Arizona	500
Colorado River Valley, Arizona, adjacent to Parker, Arizona	400
San Joaquin Valley, California	340
Palo Verde Valley, California	256
Imperial Valley, California	1,250
Total number bales	38,246

While this statement to the conference is devoted entirely to long-staple cotton of the American-Egyptian type, it is interesting to note that in the Imperial Valley of California and the Yuma Valley of Arizona a large amount of short staple is now being grown, and I am reliably informed that last year in the Imperial Valley, inciuding both sides of the international boundary line, 85,000 bales of short-staple cotton were grown, with perhaps 5000 bales of Durango, while in the Yuma Valley the production of short-staple cotton last season equaled about 20,000 bales. There is every indication that the crop of short-staple cotton from both these valleys will probably exceed last year's production by about 10,000 bales.

Conservative estimates indicate that of the American-Egyptian cotton, known as Pima, there will be raised in Arizona this season a crop of approximately 50,000 bales, to which 1000 bales may be added from California.

As practically 95 per cent of this balage will be produced in my home district, the Salt River Valley, Arizona, I shall confine myself largely to a description of this industry in that section.

The history of the development of American-Egyptian cotton is a tribute to the clear-sighted vision, resourcefulness and tenacity of purpose of a group of men in the United States Department of Agriculture, whose research work has been carried on with a fine sense of public service, and has, in a thoroughgoing and practical way, laid the groundwork for a great and new American industry.

The development of this new type of cotton has in it many interesting elements of romance. For the better part of a century the cotton grown in the rich Delta lands of the Nile had been recognized as the standard long-staple cotton of the world. While, in 1900, David Fairchild, an explorer of the Department of Agriculture, had imported some Egyptian seed, from which experimental plats of cotton were grown in the Southwest, it was not until 1902 when the thorough study on the ground of Delta-grown types of Egyptian cotton and their adaptability to our own Southwest, by Thomas H. Kearney of the United States Department of Agriculture, resulted in the development of a constructive plan for building up a new type of American-Egyptian cotton.

Romance begins when we note that Kearney brought his cotton-seed from the Valley of the Nile, the very cradle of history, and it was planted in its new American home on the Sacaton Indian Agency, but a few miles from the famous Casa Grande prehistoric ruins.

As the Egyptians had successfully grown cotton since the time of the Pharaohs, so in the prehistoric days of Arizona, had the ancient people grown cotton, long before the famous expedition of Coronado into Arizona, seeking the seven Golden Cities of Cibola in 1540. An interesting illustration of this fact came within my personal knowledge when, some 10 years since, in ex-

ploring an ancient cliff dwelling, which must have been a ruin long before the tour of the adventurous Spaniards through Arizona, I found not only finely-woven cotton cloth, worn by the cliff dwellers, but also, in one of the storerooms of this ancient dwelling, cottonseed.

Kearney knew that the analysis of the soil in the Salt River Valley in Arizona was almost identical with that of the Delta lands of Egypt. The climatic conditions were practically the same, and he had a vision that, in the arid country of the Southwest, under irrigation, lay the opportunity for developing an immensely valuable new American crop. For a number of years, with his able group of collaborators, including Messrs. Swingle, Scofield, Cook and Hudson, field demonstration work in cotton plant breeding was conducted at Government stations at Sacaton, Ariz., adjoining the vast irrigated district under the Roosevelt project and at Bard, Cal., under the Yuma Reclamation project.

The seed of the Mitafifi Egyptian variety proved the best adapted to Southwestern conditions, although at times the results were rather unpromising, the plants being rank in growth, rather unfruitful and lacking uniformity in quality. But with a definite goal in sight, this group of devoted public servants stuck to their task until, in 1908, they succeeded in developing the first of the commercially successful type of American-Egyptian, known as the Yuma variety, with a staple averaging about 1½ inches in length, which was considerably longer than the parent Mitafifi, and more the color of Jannovitch Egyptian. This Yuma type of cotton has been grown with commercial success in the Salt River Valley since 1912, but has been gradually giving away, however, to the Pima type, which is now grown exclusively.

In 1910, when the great possibilities of this new type of cotton became apparent, a committee was formed within the Department of Agriculture, known as the Committee on Southwestern Cotton Culture. Breeding experiments were speeded up to produce a finer and longer type, and that year on experimental plats at the Sacaton Agency, Arizona, the now famous Pima cotton was developed. This cotton was lighter in color than Yuma, the fiber silkier and finer, and the length of the staple had been increased to 1¾ inches. During the season of 1916-17 a group of experienced growers near Tempe, Ariz., to whom the Government had allotted this seed, produced on 252 acres 251 bales of Pima cotton, and the commercial success of this type was assured. The production of Pima cotton has since steadily increased in the Salt River Valley, that section producing last season over 34,000 bales.

The feature which made this crop of exceptional interest to spinners and to the manufacturers of choice cotton goods was the fact that this new Pima cotton not only graded very high, but that a large percentage of the cotton produced exceeded 1-M inches in length of staple and in the view of spinning experts who have used it, was quite as desirable a cotton as Egyptian Sakellaridis, and could be spun into equally fine counts.

The remarkable success in the Salt River Valley, where approximately 95 per cent of the Pima cotton produced in America will be grown this season, is largely due to the scientific care with which this industry has been developed. One of the particular features which seem to assure a successful future for the industry in this section is the fact that but one type of American-Egyptian cotton, Pima, is grown throughout the entire district, and all danger of crossing with inferior seed is avoided. Of the total area of 275,000 acres now under intensive cultivation by irrigation in this district, 88,000 acres, or 32 per cent of the entire acreage, is planted in Pima, a percentage which, in justice to the best development of the community on a diversified farming basis (so essential to success), can be readily maintained.

The growers realize that the immunity of the Salt River Valley from the boll-weevil and other pests which have handicapped the cotton industry in other sections must be maintained, and with the thorough co-operation of the Government, the best methods not only to prevent the importation of seed in which there could be any danger of infection, but to maintain the highest standard in the selection of the local seed, have been practiced.

The cotton-picking season in Arizona commences early in September, and picking is usually concluded early in February, three pickings being customary. The price paid for picking last year averaged about 3½ cents per pound. An average picker will pick about 100 pounds in a 10-hour day, but under test, an experienced picker has made a record on this cotton of an average of 275 pounds per day for five consecutive days.

The labor problem is naturally a very vital one in the development of this new type of cotton, and for the purpose of meeting this problem and others of the industry from a community standpoint, the Arizona Cotton Growers' Association was formed, and in a systematic way through the co-operation of the gins, has succeeded thus far in furnishing fairly efficient labor at just prices, and has acted as a practical clearing-house for labor.

This additional labor supply has come partly from other cotton-growing States in the South, but mostly from the importation of Mexican labor from the Northern States of Mexico, under special authority of the Department of Labor, and by the use of many Indians from the Reservations of Arizona, who are glad to obtain this seasonal labor. Not only have good wages been paid, but there has been a well-directed effort to see that these laborers are well housed, that their living and sanitary conditions are safeguarded and provision is being made for the education of their children. Last year during the peak load of the picking season, it is estimated that in the Salt River Valley this class of labor aggregated over 15,000 individuals. Many of the larger growers have established tent villages for these laborers, and in some instances dance floors have been installed, providing that recreation so dear to the Mexican.

The number and type of gins has naturally been a very important feature in the development of this new type of cotton. It was found that the saw-tooth gin, principally used throughout the South, would not effectively gin this cotton without tearing the staple, and the roller type of gin has been used, the rollers usually covered with walrus hide. This gin is almost identical with that used in the Delta of the Nile, and has proved most effective. An average ginstand under good conditions turns out about one bale every 10 hours. The cotton grown in the Southwest reaches the gin in a practically bone-dry condition, and in some of the gins the installation of humidifiers has been adopted, which it is believed slightly increases the percentage of cotton lint. The Egyptian method of spraying is not used.

The question of the percentage of lint cotton to the seed cotton entering the gin is interesting, and it has been found in the testing that the average percentage of lint to Pima seed cotton is 26 32-100 per cent, which requires about 1900 pounds of seed cotton to produce a 500-pound bale of lint, distributed as follows: 500 pounds of lint, 2 per cent waste, 38 pounds; cottonseed, 1352 pounds.

Continued improvements in the ginning processes are steadily increasing this percentage of lint, and there were many instances last year when cotton grown under correct cultural conditions showed a percentage of lint of from 28 to 30 per cent.

This season in the Salt River Valley our ginning capacity has been materially increased and 263 ginstands will be in operation with a daily capacity, in two 10-hour runs, of about 450 bales per day.

One peculiar feature about the American Egyptian cotton produced in the Southwest is that as it is grown, ginned and handled under practically bone-dry conditions, it has averaged in shipment to Eastern points of manufacture a gain of from seven to eight pounds to the bale.

There has been some difference in practice as to the basis of weight on which American-Egyptian cotton has been sold in Eastern markets, which has resulted in some confusion over the prices. Quite a portion of the cotton shipped from the Salt River Valley last year was sold without deduction of the customary 22 pounds per bale for bagging and tying, while other cotton was sold with this deduction. In justice to both buyer and seller, some established method should be followed in this matter.

Experts differ greatly as to the desirability of compressing American-Egyptian cotton. The tire manufacturers have found that the cotton reached the East in better condition if uncompressed, and most of the cotton for tire fabric use was shipped uncompressed. Other users of American-Egyptian cotton have compressed it in transit, and report that the results have been entirely satisfactory. It is evident, however, that to avoid any difficulty of wind-cutting, low compression rather than high compressions should be practiced on this cotton.

In the first years of the production of this new type of Amer-

ican-Egyptian cotton it attracted the particular attention of the manufacturers of automobile tires and of thread, who had been large users of Sakellarides Egyptian, Sea Island and Peruvian long-staple cotton. Some three years since, after most extensive laboratory tests as to the strength, length of staple and spirality of this cotton, the Goodyear Rubber Co. entered the field of production in the Salt River Valley, acquiring by purchase or lease tracts of land and through their subsidiary company, the Southwest Cotton Co., now control in the Salt River Valley nearly 30,000 acres of land, of which 18,000 were in cultivation last year, of which 8000 acres is in cotton, the balance mostly in alfalfa, in order to prepare the desert land for efficient cotton production. The land which they own is outside the limits of the Government irrigation project, and they have developed a most remarkable supply of water for this land by the successful installation of one of the most modern underground pumping plant systems in existence. Model towns have been established in the centers of their various tracts, and districts which four years ago were nothing but desert are today fine examples of highly improved agricultural communities, and it is estimated that the production of cotton this season by the Southwest Cotton Co. will amount to about 5000 bales, or 10 per cent of the total crop in this district.

In referring to the district's crop, there was produced in the Salt River Valley, adjacent to Phoenix, Ariz., last season over 34,000 bales, and from careful tests which were made by the Department of Agriculture in classifying this cotton, it is estimated that 97 per cent of the total crop showed an average length of 1⅝ inch staple, and 80 per cent showed 1 11-16 inch or better. While for a number of years the high quality of this cotton has been demonstrated by its use in automobile tire fabric, thread, etc., it took the war and the need of fabrics of a specially high quality for use in airplane wings and balloon cloth to demonstrate the unusually fine quality of this Pima cotton and its exceptional adaptability for use in fine fabrics, such as women's dress goods, men's shirtings, laces, etc., using yarns running from 60 to 130 in number.

Previous Government tests had shown that for bleaching, dyeing and mercerization, Pima cotton was practically equal to sea island or Sakellarides. As is generally known, in the manufacture of automobile tire fabrics yarns running from No. 22 are used in the tests made during the war by the War Department and the Bureau of Markets of the Department of Agriculture in the manufacture of balloon, airplane and gas-mask cloth, very choice yarns running from No. 60 to 110 were made from American-Egyptian Pima cotton, and fabrics manufactured from this yarn showed under the most exhaustive tests strength which exceeded the standard required, the Pima cotton showing a test somewhat superior to sea island, but about 1 per cent less than that of the fabrics made from Sakellarides cotton.

In visiting mills I found that certain of the tire manufacturers were using all the Pima cotton which they could obtain exclusively for making cord tires, which is a most convincing demonstration of the high quality of the cotton. In one important laboratory where breaking tests were shown, automobile fabric made from combed sea island broke under what is known as the "grip test" at a pressure of 445 pounds, while the fabric made from carded Arizona Pima of same thread and weave broke at a pressure of 516 pounds. My investigation among the mills using Pima cotton demonstrated most clearly not only its desirability because of its strength and length, but also that it was found to run exceptionally additional length, and it is very evident that the spirality of the Pima cotton can be increased by improving methods of cultivation.

The growers have learned that if they are to continue permanently and successfully in the production of Pima cotton, crop rotation is essential. On the average soils in the Salt River Valley, it is probable that after from four to six years in cotton, fertility should be restored by being cropped during every 10-year period from three to four years in alfalfa, which is probably the greatest soil strengthener of all the legumes. The cotton plant is an exceptionally heavy feeder, and studies made in other districts by soil chemists of the Department of Agriculture have shown that the approximate amount removed annually from the soil in growing a 500-pound bale of Pima cotton to an acre will be 151 pounds of nitrogen, 61 pounds of phosphoric acid and 91 pounds of potash.

In producing this new type of cotton, we have not only been exceptionally fortunate in having the thorough co-operation of the United States Department of Agriculture in seed selection and methods of production, but also through the Bureau of Markets, under the direction of Charles J. Brand and his assistants, Fred. Taylor and George Butterworth, most valuable help in working out the marketing problems of the new industry, establishing standard types and new and dependable methods of classing. Several years ago the Bureau of Markets established an office in the Salt River Valley, where a large portion of the cotton has been classed by its trained representatives, who have now worked out official cotton standards for American-Egyptian cotton. Previously the grades of the Pima cotton had been designated as Fancy, Extra, Choice, Standard and Medium. These have been replaced by Nos. 1 to 5, and every grade which is between adjoining grades, represented by types of the standards, is designated by the grade number of the high grade followed by ½. For example, cotton between grade 1 and 2 is graded as 1½. This establishes a Government standard on which purchasers can place their orders, with a definite knowledge of the type of cotton they are to receive.

This brings up the question of the probable amount of Pima cotton which will be produced this season and what proportion of this cotton will be known as free or open cotton. This year 88,000 acres in the Salt River Valley alone are planted. The land has been more carefully selected than before, and with the added experience of the growers in cultural method it is not unreasonable to assume that from 45,000 to 50,000 bales of Pima cotton will be produced. In the Florence and Casa Grande valleys, including the Sacaton Indian Agency, located from 40 to 60 miles southwest of Phoenix, this year's production will probably equal 2500 bales, while in the Yuma and Parker valleys, along the Colorado River, and in certain sections of the San Joaquin Valley in California, 1500 to 2000 additional bales of Pima cotton can be expected, making a total estimated production of this type of cotton for this season of from 50,000 to 55,000 bales.

In the Salt River Valley the growers are quite prosperous, most of them owning their land, and a large portion of them in position to finance their growing operations without tying up their crops through mortgage, so that in that district there should be for sale this year from 20,000 to 25,000 bales of unmortgaged cotton.

As an indication of the importance commercially of this new type of cotton, it is significant that last season the total production of Pima cotton equaled the production of sea-island cotton, and it is very evident that this year much more Pima cotton will be produced than sea island. The point which especially interests manufacturers is the fact that while the quantity of cotton grown is steadily increasing, its quality is also improving and its uniformity in color, silkiness and strength is exceptional.

The total manufacture in the United States of long-staple cotton, either old world Egyptian or sea island cotton in the five years previous to our entry into the war was 275,340 bales annually, of which 78,650—400-pound bales was sea island cotton production.

With increase this year of the production of Pima American-Egyptian cotton to approximately 50,000 bales, and the estimated production of less than 15,000 bales of sea island cotton, it is manifest that the Pima cotton has become a very material factor in the long-staple market.

With the development of this new industry, the growers are realizing the need of the establishment in the Salt River Valley of a thoroughly modern cotton exchange, for the purpose of furnishing to the spinners accurate information as to crop conditions, and for the working out from community standpoint of those important problems of labor, finance, seed selection and protection, ginning, storage and marketing, all of which must be handled on a basis which gives to the smallest producer the same service as that received by the largest grower.

The working out of these problems presents some very intricate and interesting questions, demanding a high degree of intelligence and good judgment on the part of the grower. Men of these qualities are steadily taking up this new industry which give an assurance of its growth and permanence.

The Need for Uniformity of Bales

By JESSE THORPE, Oldham, England.

[Instead of improving cotton baling methods, Mr. Thorpe says that the variety and irregularity of cotton bales exported from the United States is increasing. By the proper compressing and covering of American cotton, on a 12,000,000-bale crop, about 75,000 tons less covering material would be used and 75,000 tons less freightage required annually. Mr. Thorpe outlined some of the evils experienced by the European spinners who use American cotton which result from want of uniformity.—Editor Manufacturers Record.]

The need for the production of a uniform or standard bale has been increasingly felt by spinners for a long period. Many ginneries and compressors still turn out bales without any apparent regard to the needs and requirements of users. Others are proceeding on lines of reform which accord only with individual or sectional views. The result is that there is increasing variety and irregularity in the bales of cotton exported from the United States. There are round bales and rectangular bales. The rectangular ones are of an infinite variety of dimensions. Some bales are well packed and covered with comparatively light open tares. Others are indifferently covered, exposing the cotton to damage and loss in transit. Many bales arrive patched with heavy tare and bags to cover the openings made for classification purposes, etc. Some bales are hard-pressed and some are soft pressed. Their weight may vary anywhere between 300 pounds and 800 pounds. But the worst feature of all for the spinners is to find bales in which cotton of widely different staples have been packed.

America holds such a commanding lead in the vastness of its cotton-growing industry over all other cotton-growing countries that it is somewhat of an anomaly to find what an inferior position it holds in regard to the way its product is placed on the market.

The reformation of the American system of baling is a subject eminently fitted for such a body as the New Orleans World Cotton Congress to take in hand. Here are assembled the delegated representatives of all the interests affected. This is a unique occasion when growers, ginners, compressors, transporters, merchants, bankers and spinners can place before each other their respective difficulties and requirements and discuss them face to face. If our deliberations result in setting in motion practical steps for standardizing the American bale, a work of inestimable value to the world's cotton industry will have been accomplished.

As a delegate of the English Federation of Master Cotton Spinners' Associations, I have been requested to place before this Congress the views of English cotton spinners. Cotton from both Egypt and India is placed on the English market in a far more satisfactory manner than that from America.

The Egyptian bale is about 720 pounds in weight, compressed to a density of 36 to 38 pounds per cubic foot, covered by a closely-woven Hessian cloth, which, together with the bands, weigh about 22 pounds per bale. An ordinary American bale of about 500 pounds, if compressed to the same density and covered with similar material, would carry with it tares and bands weighing about 16 pounds, where it is a common thing to receive bales weighing 30 pounds of tare and bands. This saving of 14 pounds per bale would mean on a 12,000,000-bale American crop 75,000 tons less of material used and 75,000 tons less freightage per annum.

Indian cotton is now generally machine ginned in the interior, and is packed and compressed there, bound with the usual light iron bands ready for export. Bales of 400 pounds each are compressed to a density of 40 to 42 pounds per cubic foot. They are covered with a closely-woven tare, which, with the bands included, only weighs 10 pounds. The cotton separates easily in small cakes when the bale is opened at the mill. Generally speaking, it may be said that the baling of both Egyptian and Indian cotton results in a satisfactory package being received by spinners, in which the cotton fiber is not injured by the compression: the covering protects the contents against damage: the weight of tare is not excessive: there is approximate regularity of shape and weight, and when the package is opened at the mills the cotton can be dealt with in the opening machines without special precaution being necessary.

These ideals have been preached and dilated upon at many international congresses of cotton spinners held in Europe, and the Atlanta Conference of 1906 in the United States, but there is no nearer approach to uniformity. Rather is confusion becoming worse confounded.

The intention of this paper is to place before the New Orleans World Cotton Conference some of the evils experienced by the European spinners who use American cotton which result from want of uniformity. Uniformity of shape is desirable on account of transportation, and for this reason the rectangular bale is to be preferred to the round bale. There is less waste of space and it is more easily handled than the round bale. Round bales have had a considerable trial at the hands of spinners, and in my experience no English spinner will buy round bales if rectangular bales of similar cotton are available, except at some concession in the price.

There is a difficulty in dealing with round and rectangular bales at the same time in the cotton mixing-room. In order to produce a yarn of any required type, bales must be blended according to their characteristic of color, strength and staple. There is not a sufficient supply of round bales to enable a spinner to make his mixings entirely of round bales. If he could do so one difficulty would be removed.

The first objection that a spinner raises is that the round bale cannot be sampled properly before purchase. Only the outer layer can be touched, and it has very often been found that the interior layers are inferior to the outer layers.

The round bale will unroll for about two-thirds of its contents, and then the pressure on the interior layers have been such that a hard core has been formed which cannot be loosened without very great damage to the fiber. It is so hard in many cases that it is quite unusable.

The string and paper forming the center are additional objectionable features. The string gets into the spiked rollers of the opening machines and causes fires by frictional sparks traveling to the mixing of loose cotton, and if any broken up string passes through it, damages the drawing roll in the spinning processes and breaks the yarn threads.

One important virtue the round bale possessed is that it was protected against damage in transit by a satisfactory wrapper.

The reform of the rectangular bale needed is that the present covering of openly woven soft twisted tare now used be abolished. When the cotton adhering to the tare is picked from it, an enormous number of hemp fibers come off with it. These depreciate the quality of the yarn and cause trouble in the spinning rooms by bringing down the threads on the spindle points. This evil is immensely increased when such open soft twisted bagging is used with bales compressed to a high density. In such cases it is essential that a light closely woven Hessian cloth to which the cotton will not adhere so tenaciously should be used.

It would almost appear superfluous to insist that uniformity of color, length of staple and character of cotton in each bale is an essential consideration to the spinner were it not for the fact that spinners continue to receive bales in which cotton of widely different staples and characteristics is packed. If such bales get into the mixing before being discovered, they may cause very serious damage to the whole of the spinning in the mill, discontent among the operatives and financial loss to the firm. If these defects are discovered by the spinner on sampling before purchasing such cotton is immediately rejected. If it is discovered only after the bales are opened, it naturally leads to claims for allowance or replacement which irritate and cause financial loss to all parties.

The importance of greater care being taken by planters during the picking season and by ginners when the cotton is being ginned in seeing the staple, color and other characteristics, such as harshness or softness, are regular and even cannot be over emphasized.

Uniformity of weight of bales is desirable for spinners, because it is a common practice to cover or hedge sales of yarn by purchases of cotton in units of 100 bales. To the extent of the variation of the weight of 100 bales when actually received, from the total weight of cotton the spinner has calculated upon, his position is uncertain.

The banker would feel greater confidence in financing cotton if he could be assured by an agreed uniform weight per bale that

from any given number of bales he could rely on a certain weight of cotton.

If uniformity has appeared essential and desirable in the past, the appearance in the last two or three years of bales pressed to a high density has rendered the question one of absolute vital importance. The International Federation of Master Cotton Spinners and Manufacturers' Association have pressed since 1907 for reform in the baling of American cotton, which included an increase in the density of the bale. Little progress was made until the World War.

War created a shortage of ships. Then it was realized we could increase the carrying capacity of our steamers and railway wagons about 25 per cent by compressing cotton to a greater density and adopting a regular size of bale. As a consequence, a large number of bales of rectangular shape compressed to a high density have been received in England. The economy in transport space has been fully demonstrated. Bales of this type have reductions of freight rates on some railways and preferential treatment in the allocation of shipping freight. It would seem that a considerable step forward had been accomplished toward the reforms we have long advocated. But I am anxious to draw the attention of the World Congress to the fact that such serious defects have been experienced from the manner of compression employed to secure this high density that if they are not remedied the spinning mills of Europe using American cotton will be so disorganized and handicapped by their use that they will be absolutely opposed to any kind of high density bale. All the vast saving in freights, lessened weights of tares, increased facilities for handling and warehousing, etc., which will follow from the adoption of the standard form of bale depend on the first essential factor, that the cotton when received by the user must not be damaged in the packing, and must be in a suitable condition for immediate manufacture. It is therefore very fortunate that our first experience of high density rectangular bales should be unsatisfactory.

The general practice of spinners of American cotton is to use machines known as hopper bale breakers for opening and loosening the cotton fed by hand direct from the bale and delivering it on a traveling lattice in a soft fleecy mass of regular, even thickness, for the further processes of manufacture conveniently around the hopper. The bales are laid on the floor lengthwise on their broad side after the iron bands are cut. The number of bales placed around the hopper may vary from 8 to 20, according to circumstances, and according to different "marks" of cotton which it is desired to blend together. The tare is removed from the uppermost side and from the ends. The cotton, having been released from the tension of the bands, has expanded where the tare is being removed and the bale has increased possibly to double its thickness when held by the bands; at least it should so expand.

The cotton is then ready to be fed in the hopper. This is done by taking hold of, with the fingers of both hands, a convenient thickness of cotton at the end of the bale, rolling it up to the other end of the bale like a blanket and throwing this thickness into the hopper. A sheet of cotton of approximately similar thickness is removed in turn from each of the bales ranged round the hopper and thrown into it. Thus the bales forming a mixing set are gradually fed evenly into the hopper and a thorough blend is secured.

I should like it to be noted that it is characteristic of American cotton that whether a thickness of one inch or six inches is siezed at the end of a bale, it will roll up evenly to the other end of the bale, and that it is necessary in any proposed standard bale that this characteristic should be retained. The cotton in the hopper impinges on a spiked upward traveling lattice and as much cotton as is loosened and is clinging to the spike is carried forward, any excessive quantity which may be adhering being knocked or brushed into the hopper by an "evener" roller.

It will be readily understood that when a mixing set around a hopper includes both ordinary pressed and hard pressed bales, the cotton passes unevenly through the machine, the hard pressed cotton goes past the "evener" rollers and lattices only partially pulled. This difficulty will arise, however satisfactory in all respects a hard pressed bale may be, so long as bales of widely varying density are mixed together.

But the high density bales which have been received during the last two years have been compressed in such a way that the cotton will not come off an opened bale in sheets or layers. By some sort of a pressure along the sides the layers of cotton have been crinkled up into ridges, and when pressure has been applied upwards or downwards it has locked the cotton together. Where the layers of cotton have crinkled in ridges most is formed a mass as hard as stone. Along the sides of the bale where this high pressure has been applied the cotton is like a stone slab for a distance extending from six to nine inches into the bale.

The result is that when lumps of this hard-caked cotton go forward past the evener lattices they either stop the rollers from turning, break the gearing or are delivered in solid pieces into the fleecy sheet on the delivery lattices, which cannot be regulated by any compensating apparatus. Breakdowns and stoppages of the plant in subsequent processes by rollers scotching are frequent, and there has been a great increase in fires attributable to this cause.

Some bales received show evidences of having had pressure applied to the side of the bales as well as the ends, which still further increases the trouble.

A large quantity of what should be good cotton has to be returned because it has to be condensed to such a solid state that it is unusable for cotton spinning. Extra labor to the extent of at least 50 per cent has had to be employed in separating and feeding it.

From spinners whom we have addressed by circular letters asking for their opinion on high density bales, the replies received entirely confirm my experience as here set forth.

Many of them contend in addition that cotton from high density bales does not produce the same quality of yarn as that from ordinary density bales on account of the more severe treatment the fibers have to undergo to get them into the fleecy condition necessary for spinning. When it is considered that all this damage and loss is the result of cotton compressed into solid slabs or lumps when the cotton is compressed in a perfectly dry state, it shows how necessary it is to guard against external moisture being present in the cotton, such as rain or steam at the time of compression.

It appears to me that if there were any neglect in this matter the resulting bale would be as much use to a cotton spinner as a mass of concrete. Some immediate inquiry is necessary into the methods in operation for producing high density which result in the patches of solid caked cotton.

I believe they are capable of being removed, but prompt action is required. Cotton spinners generally see the necessity for a bale of higher density than the ordinary pressed American bale, and many are preparing to install new machinery or modifying their existing plants to deal with harder pressed cotton. But the harder pressed bale they are expecting to deal with must not have the damning effect of the high density bales we have recently been receiving. Uniformity of density is therefore an essential factor to be decided upon by this congress.

The commissioner of International Federation of Master Cotton Spinners, which met in Paris on the 3d and 4th of September last, resolved to recommend a density of 32 pounds per cubic foot and a measurement of 54 inches long and 27 inches wide and uniform weight of 500 pounds. Nothing is said about the thickness, but this density and weight would give a thickness of about 18 inches.

The Oldham Master Cotton Spinners' Association has since 1910 consistently advocated on several occasions to interested parties and authorities in the United States a density not exceeding 30 pounds per cubic foot. This would give a bale of 54 inches long, 27 inches wide and 20 inches thickness for 500 pounds weight.

I would personally prefer the density of 30 pounds per cubic foot, which lessens the risk of lumps or patches of caked cotton being formed.

Some attention should also be given to the form of buckle used for securing the steel bands. The studs used in Egyptian bales are much more satisfactory. The disadvantage of the buckle is that it requires a long piece of band for turning over, which is wasteful, and the bands are very liable to slip, causing very irregular-shaped bales.

Another feature which ought to be adopted is that some permanent identification plate should be securely attached to each bale which would show the place of origin and by which every firm which has handled it could be traced.

It has been suggested that spinners should pay something extra for all these advantages. No such encouragement is needed. If any planter or ginner places on the market such a bale as is desired by spinners, which is marked in such a manner that the spinner can trace it, the spinner will seek that same mark again

and will pay an increased price according to the advantages he actually experiences over other bales.

To sum up the standard bale should be: Weight, 500 pounds; density, 30 pounds per cubic foot; dimensions, 54 by 27 by 20 inches; covered with a light, closely woven Hessian cloth, secured by narrow, light steel bands which are prevented from slipping by studs or other suitable means. Bands and tare not to exceed 20 pounds. The cotton to be pressed so that it can be taken off in layers which will unroll from end to end. To be uniform in staple color and quality. Identification is securely attached giving place of origin.

In conclusion, I am satisfied that this World's Cotton Congress can agree that American cotton should be transported in a package covered with tare as light and as satisfactory as the Egyptian or Indian bale and secured by bands of steel not more than ⅝ inch wide and a buckle which after compression permanently secures, seals and establishes the value of the contents.

It appears to me if we are to reconstruct on proper lines, that is, economically, double processes should be eliminated and the bales should be compressed at all ginneries ready for export, the saving would be immense. Finally, I strongly urge that cotton compressed to the new density, should be in such condition that when it arrives at the mill the contents of bales give no more trouble than the softer compressed bales, only by these means will gin or other compress owners free themselves, merchants, bankers and users from immense trouble and serious financial loss.

The Warehousing of Cotton

By Col. William B. Thompson, New Orleans Cotton Exchange, New Orleans, La.

[Production of cotton cannot be increased unless adequate warehousing facilities are provided, and Mr. Thompson states that in this he means also the small warehouses on the farm. By protecting the cotton on the farm before it is sent to the city warehouse for sale, the farmer would himself benefit and contribute toward the saving of thousands of dollars annually lost on the cotton crop through country damage.—Editor Manufacturers Record.]

The warehousing of cotton is the crux of the whole situation. All of the fundamental problems that have been discussed up to this time can be solved when we solve the problem of warehousing. The world wants more cotton; the spinners want more cotton; and I tell you that production cannot be increased in such measure as to supply the increased demands of the world unless we have adequate warehousing—here and where the cotton is produced; and unless the producer receives above the cost of his production a reasonable profit for such production.

I say that the producer cannot receive this reasonable return unless he is in a position to take care of and conserve his property. He will have to be independent before he can realize this reasonable profit.

Now, I am no believer in nostrums or formulas; I am no believer in the efficacy of legislative price-fixing, or convention price-fixing. What we say and do here, or what we say and do in the halls of Congress cannot repeal the immutable laws of cause and effect. We must put the farmer in a position which will enable him to market his cotton gradually, as demand calls for it, and when we have done that, he will be able to realize his reasonable profit. He will not be able to do this unless he has facilities with which to hold his cotton off of the market—reserve it and dole it out as it is demanded. If he has not warehouse facilities, and when I use the expression warehouse facilities I do not have in mind the tremendous warehouses such as we have here and as they have at other cotton centers, but I mean small warehouses on the farm, sufficient in size to permit a man to store and hold his cotton until it is advisable for him to dispose of it. If he has ample warehousing facilities, he will be able to finance his cotton locally and adjust obligations which must be liquidated; and then hold such cotton as he has in reserve until such time as the market calls for it.

Therefore, gentlemen, in my opinion the solution of the problem of a greater supply of cotton, which the world wants, and which the spinners want, and which we all want, provided that supply is sold upon the proper basis, lies elementally in the question of warehousing. When you have done this, you will bring about prosperity for the producer and encourage him to produce more and more of this great staple product.

Now we come to the question of the stabilization of prices. We cannot, as I have said above, arbitrarily and by the simple process of force fix any price for cotton; but if the farmer is in a position where he is not obliged to sell on a market that is flooded; if he can economically hold and conserve his property and dole it out as demand calls for it, then you will have the only sane and economical stabilization of which I am aware.

Country damage, as has been shown by the discussion here today, is to be eliminated, and it can only be eliminated by protecting the cotton, and that means warehousing the cotton. It means we must have a system of warehousing. It means that we must become converted to the warehousing idea. In my opinion, there should be warehouses at all of the ports that handle any quantity of cotton, and at the concentrating ports there should be warehousing systems, such, if you please, as we have in Louisiana. The concentrating points in the interior should be provided with ample warehouses, and the smaller towns, on a smaller scale, should be provided with ample warehouses. It should be imperative that the gins should protect cotton, and you can not protect cotton without some cover and without some warehouse. The farmer, at his own place, would save thousands and thousands of dollars a year if he would only put his property under warehousing covers, which is bringing warehousing down to its most elemental and primitive form. If we can secure a recognition of the absolute necessity of the far-reaching needs of this matter of warehousing, then, indeed, will this conference have accomplished a great purpose; for it will have brought home to all interested the necessity of properly taking care of the cotton and providing those facilities for it which will take care of it and place it where it can be readily financed. Then we will achieve the stabilization of the price of cotton as far as it may be stabilized, and we will do it by perfectly natural methods—methods that will enable the producer to make what he should make out of it; it will encourage hi mto make more cotton; it will make more business for the spinner, and it will make far better conditions in all branches of the cotton industry the world over.

World Wants Cheap Cotton But Not At Price Of Women's Labor

"I know that the world wants cheap cotton to clothe its nakedness, but may God forgive the man who wants it at the price of women's labor and children's labor in the cotton fields. Those of us who have loved the South because of its possibilities, who have realized the wrongs of its past history, and who have devoted long days, months and years of hard work to help solve its difficult and intricate problems in order that it might be a stronger, safer and better agricultural part of this great nation, have dreamed of a change of economic conditions which would put the Southern farm woman on a better basis in her relation to production and the farm home"

The foregoing striking statement is from an article in the MANUFACTURERS RECORD of October 2, by Bradford Knapp of the United States Department of Agriculture.

Sir Charles W. Macara, of England, and the Cotton Situation

SOME CORRESPONDENCE ON HIS FORMER VIEWS AND HIS VIEWS AT PRESENT.

[In view of the world-wide interest in cotton, which makes important every ray of light that can be thrown upon the situation, we are publishing some recent correspondence between the Editor of the Manufacturers Record and Sir Charles W. Macara, one of the great world leaders in the cotton industry. Mr. Macara exerts so wide an influence in European cotton circles that if he will be as aggressive now for a full price for cotton as in 1904 he was aggressive against the price then prevailing, he can do an immense amount of good in cementing the friendship between Great Britain and America by removing the feeling that English spinners any longer seek to depress the price of this staple. Mr. Macara has always vigorously criticized speculators who helped to advance the price of cotton as an injury to the industry. As he seems opposed to all outside speculative operations in cotton, we hope he will be equally as vigorous in denouncing all who seek to "bear" the price of cotton.—Editor Manufacturers Record.]

Baltimore, Md., September 5, 1919.

Sir Charles W. Macara,
33 York Street,
Manchester, England:

Dear Sir—I have received and read with much interest the several reprints sent from your office of articles republished from the Dundee Advertiser and other papers.

The position which you take in these discussions is of much interest, and with most of it I fully agree. I have long sought to bring about conditions which would create a better feeling between employers and employes, between producers and consumers. For many years I have sought especially to secure for the cotton growers of the South a fairer price for cotton, that they might be saved from the starvation wages on which they have existed and the hardships which they have had to endure by reason of the low prices which have prevailed during the last 50 years, until the advance of the last two or three years.

I remember that in 1904 at the International Spinners' Congress you voiced the thought that the South could produce and sell cotton at a fair profit at 7 to 8 cents per pound. I am sure that this statement must have been based on very misleading information, for certainly the spirit of it is entirely contrary to the spirit of your statements made in the clippings sent me as regards labor, since you take very strong ground in favor of laborers securing fair and living wages.

There has never been a time in the last 50 years when cotton could be sold at 7 to 8 cents a pound in the South without enchaining in bitter slavery of desperate poverty the cotton growers. The low prices of cotton which have prevailed during that period have been made possible only by the fact that this cotton has been largely raised through the work of women and children, when the women should have been in their homes and the children should have been in school.

Whether intentionally so or not, any man who has opposed a much higher price for cotton than the average of the last 50 years has been to the utmost extent of his ability working to hold the women and children of the small farmers of the South in illiteracy, in desperate poverty, and to keep them in the field without any opportunity for advancement.

I enclose copy of two letters recently written for the MANUFACTURERS RECORD by leading cotton manufacturers of New England, in which they have urged the South to get as large a price for cotton as possible. This is so directly contrary to the position taken by you at the International Spinners' Congress that I would be very glad to have from you your views on the subject at present, as to the cotton trade, and whether you still believe in a low price for cotton, or a price which can be made possible only by the practical enslavement of the women and children of the small farmers to grow cotton.

I am quite sure that this cannot be your position, but no other conclusion could possibly be drawn from your statement in 1904 other than that you were at that time wholly uninformed as to the actual cost of cotton growing and the conditions under which cotton was raised.

Hoping that I may have the pleasure of a reply from you on this subject, I am. Very truly yours,

RICHARD H. EDMONDS, Editor.

33 York Street,
Manchester, September 26, 1919.

Richard H. Edmonds, Esq.,
Editor and General Manager,
Manufacturers Record,
Baltimore, Md.

Dear Sir—Your letter of the 5th instant came to hand a day or two ago, and I am gratified to learn from it that in the main you agree with the views expressed in the leaflets I sent you some time since. These views, after all, are in no way different from those I have not ceased to express for more than a quarter of a century.

I notice that in your letter you make reference to some alleged expression of mine made in 1904—fifteen years ago—with regard to the price at which cotton could then be profitably grown. To this I have to reply, in the first place, that I have no recollection of making the statement, and in the second place, I am quite sure that if I made it, it would be as the result of information supplied from a reliable source.

Supposing, however, it be true that I made the statement 15 years ago; whatever has it to do with the position today? At a time when the thoughts of all earnest men are being directed to the formidable task of bringing about a happier future for all peoples, after the most appalling conflict in the world's history, it is time to drop recrimination and to help forward the work on hand.

My desire for the betterment of the condition of the cotton planter is known throughout the world, for I have never ceased to urge that he should be adequately rewarded for his work. He is one of the vital links in the world cotton industry chain, in which, if a link should break, disaster is inevitable.

If you have read the books and reprints which I have sent from time to time, I am altogether at a loss to understand how you can have so misconstrued my views.

I understand that the editors of the Textile Recorder sent you a copy of my Open Letter to the President and Members of the World Cotton Conference some time ago, but in case it has miscarried, I enclose another copy. If any confirmation of my attitude toward the planter is needed, it will be found in that Open Letter, which has been circulated throughout the world. I am,

Yours faithfully,
(Signed) CHARLES W. MACARA.

Baltimore, Md., October 14.

Sir Charles W. Macara,
33 York Street,
Manchester, England.

My Dear Sir—I am in receipt of yours of September 26. Except for the leaflets, receipt of which I acknowledged in my letter of September 5, I cannot remember having received any from you in the past.

You refer to "some alleged expression" made in 1904, and say that you have no recollection of making that statement. If you will turn to your article in the special Anglo-American number of the Revue Economique Internationale, published in the spring of 1904, you will find the statement which I quoted.

Moreover, it is directly in harmony with all of the addresses made at the International Congress of the Master Cotton Spinners, held in Zurich May 23-27, 1904. In your address at that

meeting you repeated the statement made in the article in the Revue Economique Internationale as to cotton being grown in the United States at a profit of 3½d. to 4d. a pound.

The "alleged expression" to which you refer, with the intimation that you have no recollection of ever having made it, will be found on page 13 in the official report of the International Cotton Congress, of which you were president, of your address which was delivered on May 24, 1904. This statement, however, was merely a repetition of what you had previously written in the Revue Economique Internationale. The International Cotton Congress was called by you, and through the entire meeting the comments on the cotton situation followed very closely on the line of your statement about the price of cotton. I beg, therefore, to suggest that in using the word "alleged" and in stating that you have no recollection of ever having made that statement, you have, unwittingly, I am sure, made an intimation that what I credited to you was incorrect. With the information I have now given you I am sure you will admit that your intimation was wholly unjustified, and was, indeed, quite out of place.

Any man who informed you that cotton could be sold at a profit to the growers at 3½d. to 4d. (7 to 8 cents) per pound was wholly incompetent to express an opinion on the subject. It has never been possible to grow cotton at such a price in the South, not even, indeed, with slave labor prior to 1860, except at a loss to the growers. Any investigation made by any intelligent man familiar from personal study of the situation as to cotton growing in the South, would have shown that it was impossible for this section to produce cotton and sell it at a profit at that figure.

I am fully aware of the fact that there were men in America who would not have hesitated to misinform you; for misinformation on this subject has been a part of the "cotton bear gamblers" for many years. You will, however, note that in the report of the proceedings of the International Cotton Congress there was a general demand for more cotton, but at lower prices. You took the ground in your address, as you did in the Revue Economique Internationale, that the higher prices were due to cotton gamblers, but apparently you overlooked the fact that the worst cotton gamblers with which the world has been cursed are those who have tried to break down the price of cotton, and their name has been legion, both in this country and abroad.

It is a rather surprising fact that neither you nor, so far as I know, any other great leader in the cotton world has ever denounced the "cotton bears" for breaking down the price of cotton; but the denunciation of the "cotton bulls," who have helped to lift the cotton market to a higher level, has been unceasing.

In your article in the Revue Economique Internationale you credited the higher price of cotton wholly to the cotton gamblers, and you vigorously assailed them. But in that article you said:

"An international combination to reduce the consumption of cotton is necessary if the existing position is to be effectively dealt with," and you added:

"To endeavor to bring about an international union of users of cotton is a work well worthy of a serious attempt, for no combination of holders of any raw material can long stand against a combination of users of that raw material."

You were thus suggesting a campaign to "bear" the price of cotton, while denouncing those who were seeking to "bull" the price. You charged the advance in the price of cotton to the "bull" speculators, but Mr. Atkins, the secretary of the British Cotton Growing Association, in his address at the International Cotton Congress of 1904, took the view that it was a decreased supply in proportion to the world's needs which had brought about these higher prices, and when you introduced him at that congress he made the following statement:

"America thus supplies nearly three-fourths of the whole, and, therefore, the prices of all cotton are virtually ruled by the success or the non-success of the American crop. During the last three years this has been painfully manifested, as owing to three moderate crops there has been a scarcity of cotton and prices have been forced up, and the position has been taken advantage of by speculators to the great disadvantage and loss of all concerned in its manufacture. What would happen if there should be a very bad season and the failure of the crop in the States? It is too terrible to contemplate."

Mr. Atkins recognized that the actual shortage of the crop furnished an opportunity for "bull" speculators, but that the primary cause of high prices was the actual shortage in the supply. You, however, denounced the "bull" speculators for the advance, overlooking the fact that these higher prices were paid to the grower himself.

I am in hearty sympathy with your expression that the thoughts of all earnest men should be directed to the task of bringing about a happier future for all peoples. But in the light of the fact that there has been in this country and in England and on the continent a constant reiteration of the statement that cotton prices are too high even when they were abnormally low, I have been compelled, in justice to the cotton producers of the South, to present these facts.

Let me remind you that at the International Cotton Congress of 1904 practically every address made expressed a demand for lower prices of cotton, and yet a leading American cotton manufacturer made an address at New Orleans this week in which he said that in his own experience of nearly thirty years of active participation in the manufacturing end of cotton, he had never known of a textile man even advocating any scheme having as its aim the lowering of cotton values.

As bearing on that, permit me to quote from an editorial in the MANUFACTURERS RECORD of July 10, 1919, reviewing the International Cotton Congress of 1904, called by you and fathered by you. I do not do this from any desire whatever of "recrimination," which you suggest should be eliminated, but from a desire to present the facts which are so vital to a full understanding of the world's cotton industry.

The editorial was as follows:

"In a recent editorial we gave some interesting facts in regard to the efforts made by President Macara of the Federation of Master Cotton Spinners' Association to break the price of cotton in 1904, when he appealed to the cotton spinners of the world to join in a combine to close their mills or run on short time.

"As an outcome of Mr. Macara's activities an international congress of Master Cotton Spinners and Manufacturers' Association was held in Zurich, Switzerland. In the course of his address to the delegates at that meeting Mr. Macara said:

" 'There is little doubt that cotton can be grown at a profit in the United States at 3½d. to 4d. (7 to 8 cents) per pound, according to yield.'

"In this statement Mr. Macara simply expressed the views of foreign spinners that the South could raise its cotton at a profit at 7 to 8 cents a pound, though this price would really mean bankruptcy to the cotton-growing interests.

"The same thought was expressed by other delegates to the cotton manufacturers' convention. Running through the entire discussion was the demand for enlarged production of cotton and for low prices for cotton. Herr Kuffler of Austria was so much impressed with the importance of the work of cotton manufacturers, of which he was one, that he said:

" 'While in the business for the purpose of making money for ourselves, we may be looked upon as public benefactors.'

"And he added:

" 'We want cheap cotton,' and 'we hope cotton will go down, if not to 3d., to 3½d.'

"These are typical statements of how Europe, under the lead of Mr. Macara and other cotton buyers, was fighting to break cotton prices, and yet at the same time were clamoring for an increased production of cotton. It was freely admitted by many delegates to that cotton manufacturers' congress that cotton consumption had far outgrown the world's cotton supply, and that there was danger that the demand for cotton would continue to increase much more rapidly than cotton growing could be encouraged. Only one delegate, we believe, took the ground that the way to secure an enlarged production of cotton would be to pay a high price for it. The other delegates in discussing the subject followed very largely in the lead of Mr. Macara and Herr Kuffler in insisting that cotton must be cheap, but at the same time there must be a great increase in its production.

"Many wild and visionary schemes were agitated for cotton growing all over the world wherever climatic conditions would seem to indicate the possibility of raising cotton. French delegates told about the efforts of the French Government to increase cotton production in its colonies. The German delegates were enthusiastic about the efforts of the German Government to raise cotton in all of the tropical regions of the German colonies. Portugal joined in the same line of thought, and, of course, the del

gates from Great Britain told about what that country was preparing to do in increasing cotton in Egypt and in India and in distant parts of the world. Few of them made any reference to the fact that similar efforts had been under way for about 100 years, and that what European governments were doing in 1904 was only what a number of them had been doing since shortly after the wonderful development of the cotton industry in this country, in the early part of the nineteenth century.

"The cry of Herr Kuffler, 'we want cheap cotton,' has been the cry of a century, and yet only now and then has there arisen a man of standing in the manufacture of cotton who had the courage to take the ground that the way to get cotton in abundance was to pay a good living profit to the grower.

"The theory of the majority of cotton manufacturers, especially of Europe, and to some extent of New England, always has been to bear the price of cotton, and in times of advancing price to insist always to the public that there was no foundation for higher prices of cotton, and necessarily the public felt that there was no justification for paying a higher price for cotton goods. Until the cotton industry of the world completely changes its mentality on these points and recognizes that cotton is a permanent necessity for the world's clothing, and that a living price must be paid to the grower, the world will never be willing to pay to the manufacturer a uniformly profitable price for his product. The grower must first be given a good living profit, and henceforth the grower is going to get this and leave to the manufacturer the question as to what profit the latter will get out of the consumer by taking a more intelligent view of the importance of cotton to the world than he has done in the past.

"In 1906 the editor of the MANUFACTURERS RECORD in an address to the annual convention of the Virginia Bankers' Association, in discussing the relation of the South's cotton trade to world affairs, said:

"'Fifteen years ago, when we were beginning to see daylight, there came a period of exceeding low prices of cotton which lasted for seven or eight years, during which we lost almost as much on cotton as we made on industrial advancement.

"'Two years ago, when the South produced nearly 14,000,000 bales of cotton at a time when it was estimated that the world would need scarcely more than 10,000,000 bales of American cotton, it looked as though the cotton buyers and the financial powers of Europe, aided to some extent by kindred interests in America, would beat down the price of cotton to 5 or 6 cents a pound. At this critical time a leader was found equal to the emergency of combining the cotton planters and the bankers of the South in a plan to prevent the slaughter of cotton. By holding back the crop, the farmers, sustained by the co-operation of Southern bankers, halted the panic which threatened this industry for a few weeks, prices gradually righted themselves, and the South gave to the world its greatest lesson on the value and power of co-operation. The whole situation was changed; the world was taught that the South was no longer a beggar; that the Southern cotton planter could no longer be robbed with impunity; that he intended and had the power to enforce his intentions to secure a fair profit for this royal staple.

"'When you read of the efforts which are being made by the spinners and the governments of Europe to develop cotton growing in other countries in order to lessen their dependence upon the South, go back 7 years and you will find that even at that early period Europe was making far greater effort to accomplish this very thing than it is doing now. By the side of the agitation at that period in Parliament and in cotton-mill circles, all that is now being done in this respect seems like child's play. Yet despite the active propaganda carried on for nearly half a century before 1860, and now revived, the South's monopoly of the world's cotton trade was never so strongly intrenched as it is today.

"'An official report made in England about 60 years ago took the ground that the English people should endeavor to keep cotton at the lowest price possible, not only because of the profit to England in buying cheap cotton, but because, as the report stated, it would thus secure a larger supply, since the cotton planter in the Southern States of America would undertake to increase the number of his bales to make up for the smaller amount which he received per bale.'

"We do not believe that the cotton manufacturers of New England are in any way whatever less patriotic than other leading business men of that section. We do not believe that they are in any way hostile to the best interests of the South. Some of them have been misled by such unfortunate statements as that issued by Mr. Durfee, secretary of the New England Cotton Buyers' Association, a few months ago, and by somewhat similar criticism in New England papers. The New England cotton mill men are broadgauged in their nationalism, and we believe that a large majority of them are thoroughly interested in seeing the cotton grower gain a fair profit for his labor, but in times past they have been largely misled by the foolish statements put out as to the cost of cotton production.

"The average tenant farmer in the South raises five or six bales of cotton through his own work and the labor of his wife and children. When cotton sold at 8 or 10 cents a pound, or $40 or $50 a bale, this meant a gross income of, say, from $200 to $250 a year for his crop, with a small amount to be added for the seed. One-third to one-half of this must be paid to the landowner, and out of the remainder, a beggarly sum indeed, would have to come the cost of fertilizers and the keeping of his horse or mule and the wear and tear on his little equipment, and on the balance, if any, he would have to eke out a scanty existence and always remain in debt.

"Had the farm laborer or the tenant farmer in the South ever received wages commensurate with the wages paid in other parts of the country, it would never have been possible during the last 50 years for the small farmer owning his own land or the tenant farmer to raise cotton at 10 or 12 cents a pound.

"Cotton has been sold in the past at the low price prevailing because nothing was allowed for the labor of the man and his wife and children, and nothing was allowed for the deterioration of soil and the farm implements. It was simply a struggle to exist from year to year. But these facts the cotton manufacturers of the world did not understand, and they would not read as carefully as they should have done the publications which have sought for many years to tell the actual facts in regard to cotton growing in the South. This is why the New England cotton manufacturers have often aligned themselves on the wrong side and created a spirit of hostility among themselves to the cotton-growing interests of the South, and that beget a spirit of hostility among cotton growers to the New England cotton manufacturers.

"It was a lamentable mistake all around. Some of it was due in times past to the errors of the United States Department of Agriculture in putting forth misleading statements in regard to the cotton situation, notably in 1904-1905, by the then Secretary of Agriculture, who at that time was virogously criticised in the MANUFACTURERS RECORD for misleading the cotton industry of the whole world."

A few weeks after you made your criticisms in the International Congress of Cotton Spinners of those who had sought to advance the price of cotton, President W. C. Heath of the American Cotton Manufacturers' Association, at its annual meeting pointed out that the advance in cotton had been due to normal causes, and on this point said:

"When the price of the staple began to rise last fall, however much the cause might have been due to other things, everybody knew that all those causes were based upon the fact that according to all human wisdom the supply was going to fall short of the demand. But instead of accepting, at least tentatively, this fact and beginning to try correspondingly to bull the manufactured article, we all took the opposite course and became voluntarily raw-cotton bears, and consequently manufactured-cotton bears. And since the market resisted the combined assaults of the manufacturers of the world and the strongest speculators of the world, climbing upward in spite of all to a height which seems dizzy to shorts, we have as manufacturers our losses from a yet irresponsive market for our pains. As manufacturers we should have accepted the situation of a rising market. Instead of that, we persistently, continuously and emphatically advertised to the world that it was our opinion that the increasing price was purely manipulaion and far beyond intrinsic value. * * *

"Under such circumstances it seems to me that our customers would have been fools to take more of our goods than absolute necessity drove them to. This thing of bearing the market on the raw material, as you have done, is, therefore, a weapon of doubtful efficiency in the hands of the manufacturer. * * *

"No body of men have cried out as fiercely, and often as unreasonably, against the American cotton gamblers as have the spinners of Lancashire, and yet a short time ago the president of their associaton, looking back at the history of the cotton market

last season, said in an address to the association, 'last season cotton cornered itself.'

"When the price of cotton began to rise last fall, due partially to manipulation, many of us began to cast vile calumnies at the bull leaders, and charged them with being gamblers, and even blacklegs, but one is impelled to ask the question:

"Who were the greatest gamblers, they who bought what they wanted, or you, who sold for delivery that which you did not have?

"One prominent member of the New York Cotton Exchange was heard to say not long since: 'Cotton is standing alone without a friend, it would seem. Against it is the English Government, the combined mill interests of the world, the market manipulation of Liverpool and New York and bankers of Wall Street, and every possible influence that can be brought to bear, and still prices hold high.'

"Another said: 'I have been a member of the New York Cotton Exchange for a great many years, and I have never heard a word said against a man who tried to bear cotton, but the man who endeavors to bull cotton has always been a target.'

"Cotton has never been so low that persistent attempts have not been made to depress the price. An advance to 6 cents in 1897 was fought just as hard as the 16-cent level this year."

In your Open Letter addressed to the World Cotton Conference you again raise the question as to how the increase in cotton prices has been brought about, and ask, "How much of it is due to the manipulation of gamblers?" The increase in the price of cotton is certainly not yet sufficiently great to give to the cotton growers of the South a fair margin of profit for their work. Any "gambling" effort which has advanced the price of cotton has necessarily helped to raise the standard of wages and living on the part of cotton growers, and the bull gamblers could never have been successful in putting up the price of cotton if there had not been a world-wide shortage in the staple, and if it were not true that the cotton producers had never received a fair price for their labor.

On the other hand, I trust you will bear in mind that in the desire to bring about world harmony it is important that the influence of "bear" cotton gamblers in depressing the price of cotton, for the "bear" gamblers are far more numerous and far more powerful than the "bull" gamblers, should be criticised as vigorously as you have criticised those who have been on the "bull" side of the market.

I need not say that I view the matter wholly from a disinterested standpoint, as I have never raised nor manufactured a bale of cotton, nor do I ever under any conditions buy or sell or speculate in cotton.

For 25 years I have made a close study of the cotton situation, and have seen the appalling suffering among the cotton growers of the South due to low prices, while cotton manufacturers, such as those who spoke at the International Cotton Congress in 1904, and others, constantly denounced any advance of cotton as due to the cotton "bull" speculators or gamblers. I have no sympathy whatever with the cotton bulls or the cotton bears. I regret that it is not possible for this industry to be conducted with absolute freedom from the operations of bulls and bears, but when I know that for many years the cotton bears have done their utmost to beat down the price of cotton, and that scarcely a voice has ever been raised on the part of manufacturers against the cotton bear, while the voice of many manufacturers has been constantly heard against the cotton bull, I am constrained as a matter of duty to press these points upon your attention.

Cotton is a world crop, a world industry, of such tremendous importance that it is most essential to the welfare of the world in its broadest sense that there should be a recognition on the part of the cotton manufacturers of the problems which the cotton producers have had to face. Cotton manufacturers have made far greater profits out of taking the raw material and turning it into finished product than the producers have made in raising this staple. These have been the "drawers of water and the hewers of wood," earning but a scanty existence, while they have seen many manufacturers gain great fortunes by handling their raw material.

Moreover, cotton has a vital relation to the politics of the world, and to the friendship which should forever exist between Great Britain and America. So long as the cotton growers of this country know, as they have known for a century, that constant efforts have been made to beat down the price of that crop, it is wellnigh impossible to bring about that harmonious relation, that kindly feeling, indeed that intimate friendship which should exist between the powerful cotton manufacturing interests of Great Britain and the vast number of cotton producers in America whose influence largely shapes the politics of the country.

As every speech I believe, without exception, at the International Cotton Congress in 1904, representing the entire cotton trade of Europe, attacked or criticised the higher price of cotton then ruling, and urged that cotton growing should be developed in other countries for the express purpose of making Europe independent of the cotton of the Southern States, the inevitable effect in this country was to intensify in the minds of cotton producers a realization of the fact that they must fight a battle against the cotton buyers—a battle which has been raging ever since, but which the cotton producers have now very nearly won.

I greatly rejoice to be able, in the light of your letter, to feel that you are henceforth to be numbered among those who will use their utmost power, great as that is, to maintain a good price for cotton. If I rightly interpret your position, you will render an inestimable service to the friendly relations which should exist between the two great Anglo-Saxon nations of the world. Every speech which you can make in favor of paying to the cotton growers of the South a full and profitable price for their cotton will touch a warm spot in millions of hearts over here. Any denunciations which you make public of the cotton bears whenever they seek to break down the price of cotton (and surely it is as much a crime for a combination of bears to try to force down the price as it is for a combination of bulls to try to force up the price) will do untold good in cementing the friendship between the cotton growers of the United States and the cotton manufacturers of Great Britain. As one of the world's great leaders in the cotton industry, as one who is constantly seeking to better the relations between capital and labor, between the producer of cotton and the manufacturer of cotton, you can exert an influence immeasurably great in its importance.

I have for years unceasingly sought to bring about a more friendly relation between employers and employes, between capital and labor. I have insisted that the laboring men have never received a full share of the profits of the business, just as I have insisted that the cotton producers have never had their fair share in the value of their product. I have urged higher wages, and I have repeatedly said that any man who sought to break down the higher wages which have come about as a result of the war, wherever these wages were coupled with efficiency, was seeking to develop a Bolshevistic spirit and would creat anarchy. In that position I believe I am in entire harmony with your views.

It is not near so important that the capitalist should receive a large return on his money as it is that the producer and the laboring men should receive a compensation which will enable them to live more comfortably and to educate their children better than they have ever been able to do, and to enjoy more of the comforts of life than has been their privilege in the past.

I greatly rejoice that with all your influence and power you are engaged in this good work, and therefore I trust that whenever it may be possible you will give voice to your hearty commendation of good prices to the producer of cotton, for upon profitable prices alone can his prosperity be founded. And without full prices for cotton the South will concentrate its agriculture upon diversified farming, and in doing so will increase the world's supply of foodstuffs, but will tremendously decrease the world's supply of cotton.

I am sure that the representatives of England's cotton trade when they go back from a personal study of the conditions in this country will fully appreciate the fact that the cotton bulls, instead of being an unmitigated curse to the trade, helped to save the South from utter destruction in the past by the work of the cotton bears, and the cotton bears, whether they be cotton manufacturers or rank cotton gamblers, are certainly no more worthy of commendation than the cotton bulls, for the cotton bulls at least have to their credit an effort to lift from the cotton growers the burden of overwhelming poverty which rested upon them for so many years by reason of the work of the bears.

With the full appreciation of what it will mean in cementing the friendship of the two nations upon whose friendship the future of the world must largely depend, to have from you and other English cotton manufacturers a constant expression in favor of full prices for cotton to the Southern grower. I am,

Sincerely yours,

RICHARD H. EDMONDS, Editor.